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Scientific, Technical and Economic Committee for Fisheries (STECF)

Evaluation of Fishing Effort Regimes in European Waters - Part 2 (STECF-14-20)

Edited by Steven Holmes

This report was reviewed by the STECF during its 47th plenary meeting held from 10 TO 14 November 2014, Copenhagen, Denmark

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EVALUATION OF FISHING EFFORT REGIMES IN EUROPEAN WATERS PART 2 (STECF- 14-20)

THIS REPORT WAS REVIEWED DURING THE PLENARY MEETING HELD IN BRUSSELS, BELGIUM, 10-14 November 2014

Request to the STECF

STECF is requested to review the report of the **EWG-14-13** held during September 29 – October 3, 2014 in Barza, Italy, evaluate the findings and make any appropriate comments and recommendations.

Introduction

The report of the Expert Working Group on Evaluation of fishing effort regimes in European Waters Part 2 (EWG -14-13) was reviewed by the STECF during its 47th plenary meeting held from 10-14 November 2014, Brussels, Belgium.

The following observations, conclusions and recommendations represent the outcomes of the STECF review.

STECF comments, observations, and conclusions

STECF notes that the Terms of Reference relating to fishing effort regimes in the following sea areas have been addressed almost fully by the Report of the EWG 14-13:

1. Eastern and Western Baltic,
2. the Kattegat,
3. the Skagerrak, North Sea, European waters in ICES Div.2 and the Eastern Channel,
4. to the West of Scotland,
5. Irish Sea,
6. Celtic Sea,
7. Atlantic waters off the Iberian Peninsula,
8. Western Channel,
9. Western Waters and Deep Sea
10. Bay of Biscay,

The EWG 14-13 Report provides updated estimates of trends in fishing effort, landings and discards by species, CPUE and LPUE by fisheries and species, partial fishing mortalities for effort regulated and non-regulated fisheries by Member States, spatio-temporal patterns in cod

catchability, and detailed evaluations of the national implementation as regards fishing effort derogations granted under the provisions of article 13 of the new cod plan (Counc. Reg. No 1342/2008).

STECF notes that the means of data aggregation has been transferred to new software architecture. There are three motivations for this

1. Greater data security as all data is processed on a secure server.

2. Increased quality assurance through the exclusive use of the dedicated JRC upload facility.

3. Greater transparency of the data input and processing through a documented upload facility and processing algorithm and because of point two.

All data used by the EWG 14-13 was submitted through a revised upload facility and all processing was performed on the JRC secure server. STECF further notes that data processing time has also been reduced considerably. This is a welcome development as re-submissions are sometimes required during EWG meetings resulting in re-compilation of aggregated data. These benefits are likely to become increasingly apparent as the quantity of data for processing continues to increase.

Because of software problems when aggregating data it was not possible for the EWG to perform comparative analyses regarding cod and sole selectivity of fully documented fisheries (FDF) and fisheries not participating in FDF schemes.

STECF noted a number of generic issues dealing with (i) data re-submissions, (ii) gear categories used for discards raising and (iii) validity of CPUE conversion factors. These three points are detailed below. Additionally, STECF discussed the future of the database and some of the expected incoming issues.

(i) 2014 DCF Fishing Effort Data Call

The EWG 14-13 Report is based on data submitted by Member States in response to the 2014 DCF fishing effort data call in 2014. STECF notes a general improvement in Member States' submissions with regard to data completeness and quality as well as improved compliance with deadlines.

STECF notes, however, that the EWG-14-13 was seriously affected by late re-submissions of data. Some re-submissions unconnected to requested corrections were made up to few days before the second EWG, sometimes without prior agreement and communication with the JRC. It had been attempted to prevent this situation by setting a 'gentleman's agreement' deadline for re-submissions set for two weeks before the second meeting. Some countries had respected this, others ignored it. Additionally, format errors in some submitted data were discovered by the EWG experts during the meeting (missing discards data reported as 0 (= no discards) instead of -1(=no information available)). The impact of such errors on the estimation of discards ratios was considered large enough to require corrections during the meeting itself. Data was still being re-processed on the second last day of the meeting. For this reason EWG-14-13 had to concentrate on producing key tables of the report.

STECF notes that the new institutional procedures for data processing compound the problem of late re-submissions because of the dependency of the EWG on the facilities at the JRC and greater time elapsed between error detection and availability of re-processed data. The new procedures, however, do ensure greater security, reproducibility and traceability.

The EWG will continue to set a deadline for re-submissions in future. STECF advises the Commission to support initiatives to prevent 'last minute' re-submissions. STECF also advises that given the new data processing system future EWG meetings will benefit from continuity of IT support within the JRC.

(ii) Categories used for discards raising

Member States provide information at the level of gear and mesh size class, but this is subsequently aggregated into fisheries, before the application of discards raising algorithms. STECF notes that the definition of fleet segments for estimating specific international landings and discards was initially devised in relation to the cod recovery plan (Reg(EC) 423-2004) and subsequently adjusted for the Long Term Management Plan for Cod (Reg) EC 1382/2008 but has remained unchanged since. Subsequent to the first assessments of effort regimes, new areas covered by different management plans have been added to the remit of the EWG. The definition of fleet segments for 'fill-ins' of discard information can be inappropriate (too highly aggregated, e.g. when all trawl fisheries are lumped together in one single category) when used for these areas (Iberian peninsula). Problems have also been identified when gears unregulated by the effort management regime take a significant proportion of the catch of species of greatest concern in the area (Western Channel). STECF advises that revised methodology for estimation of international discards be considered for some of the fishing effort regimes. More generally, STECF acknowledges that the objectives of EWG-14-13 extend now beyond the monitoring of the regulated effort, and that some revision of the established procedures, some of which have now been in place for ten years, should be undertaken.

(iii) Interpretation of CPUE conversion factors

STECF notes that the use of CPUE conversion factors can be questioned from a scientific point of view. The estimated CPUEs are not only influenced by the potential of a certain gear and mesh size to catch a certain species but also to an extent by the targeting behaviour of fleets and in which area they operate. For example, the large difference in CPUE for cod between TR1 and TR2 is to an unknown extent influenced by the fact that TR1 is used to fish for cod while cod is only a bycatch in the *Nephrops* TR2 fisheries. It remains unclear what would be the catchability of TR2 when used to target cod. Therefore, the CPUEs calculated in this report do not reflect the theoretical potential of a certain gear category to catch cod. Such estimates could only be derived from gear trials applying different gears in the same area. In addition, gears are used for different kinds of fisheries in different areas. For example, TR1 gears are used to fish for haddock and cod but also, in the central North Sea, to target plaice. These fisheries have different discard rates and CPUEs for cod that cannot be distinguished in the current transfer coefficient calculations.

STECF notes that fisheries-specific parameters for the various fishing effort regimes can be downloaded as digital Appendixes to the present report from the EWG 14-13 web page: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1413.

(iv)Future perspectives

STECF reiterated that the EWG and the effort database were launched and designed in order to support the evaluation of the effort regimes, and that future perspectives are uncertain under the new CFP, particularly if effort limits are not to be used in future. STECF notes also that under the landing obligation, changes in selectivity will likely occur in many fisheries at the local scale, and current procedures for estimating and raising discards will be challenged. STECF suggests that any decision on the future use of and design changes to the effort database is done considering the wider strategic monitoring needs of the CFP and all data calls issued under the DCF.

In addition to the primary support for the evaluation of the cod recovery plans (Reg(EC) 423/2004; Reg(EC) 1342/2008) the catch and effort data has been and is continued to be used for a wide variety of uses. A summary of these are listed below, the list is not exhaustive, and as the data is freely available the full extent of its use cannot be fully quantified.

STECF PLEN-14-03

- STECF EWG 14-11 Landings Obligations in EU fisheries (part 4): Landings and discards by gear (re-aggregated data as used by STECF EWG 13-16).
- ToR 6-1 Selectivity in the Celtic Sea: Two contributing analyses.
- ToR 6-2 Technical measures and a results based approach: Catch numbers at age.
- Use of the landings by ICES statistical rectangle data.
- ToR 6-3 Advice on the state of cod, haddock and whiting stocks in the West of Scotland: Makes use of effort graphs form the STECF-14-13 report.
- ToR 6-4 Evaluation of national measures taken under Art 13(6) of the cod plan: Use of ‘Fpar’ tables.

Previous STECF Plenaries

- STECF EWG 13-16 Landings Obligation (part 1): Landings and discards by gear. Note; the data needed to be re-aggregated from the raw database into TAC management areas (cf effort management areas used in the electronic annexes).
- STECF PLEN-14-02 ToR 6-4 Update of the STECF assessment of closed areas: Cites results from STECF effort reports of 2011 and 2012.

Potential incorporation into future (STECF) work

- Assessment of North Sea multi-species management plan.

EU projects (organisations)

- Discard atlas:
  - Schevevingen Group: Discard Atlas of North Sea Fisheries
  - NWW High Level Group: Marine Institute, Galway, Ireland: Discard Atlas of North Western Waters Industrial and Pelagic Fisheries
  - NWW High Level Group: CEFAS, Lowestoft, Ireland Discard Atlas of the North Western Waters Demersal Fisheries
- BENTHIS: Effort by ICES rectangle.
- MareFrame: Effort by ICES rectangle, landings by rectangle, discards by gear group and vessel length class.
- MEFEPO (FP7): Effort by gear types. Report: Making the European Fisheries Ecosystem Plan Operational Work Package 5 Report, *Development and selection of operational management strategies to achieve policy objectives*. [NB: report published 2011, STECF database not properly cited].
- MYFISH (FP7): Effort by ICES rectangle. Electronic annexes cited in Shephard et al. 2014 (ICES Journal of Marine Science; doi:10.1093/icesjms/fsu146)
- European Parliamentary Research Service (EPRS): Discards by member state and species.
- EFCA European Fisheries Control Agency (EFCA): Effort, landings and discards by gear category. Discards by gear category has been linked with and compared to equivalent data from ICES to produce the 'Joint Deployment Plans Database' that also incorporates logbook data.
- DAMARA - Scientific support for the development of a management plan in the Celtic Sea. EC Project SI2.658980.
- GEPETO – Sharing Knowledge for Sustainable Fisheries - Interreg European cooperation project
- DEFINEIT (FP7): Spatial distribution of fishing effort in the North Sea.

Other projects (organisations)

- UNEP-ASCOBANS: Effort data by gear type (West of Scotland area). Special request to include data by quarter.
- MMO (Marine Management Organisation) UK: Discard rates for report "North Sea Cod Catch Quota Trials: Final Report 2013".

- EU member states: Landings by ICES rectangle and landings by gear type. To quantify the proportion of landings of given species coming from and to characterise the fisheries operating in their national waters.

Effort regime evaluation for the Baltic

For regulated gears in accordance with Council Regulation (EC) 1097/2007 and unregulated gears combined the total effort deployed in the Baltic in 2013was 41% lower compared to 2004 but 25% higher compared with 2012.

Deployed effort of regulated gears in cod plan areas A (subdivisions 22-24), B (subdivisions 25-28) and C (subdivisions 29-32) declined between 2004 and 2009 but fluctuated without clear trend since.

For small boats <8m LOA, data from Estonia was unavailable and data from Finland could not be used. Of the usable data the majority of effort was distributed between non-regulated gill nets (46%), pots (23%) and regulated gill nets (12%).

STECF undertook a provisional quantitative analysis regarding the estimation of effort deployed in units of days at sea by Member State, and compared the national uptake with the calculated maximum effort available. STECF notes that its approach to estimate the maximum days at sea available per year and Member State from the product of its number of active vessels using one of the regulated gears times the days at sea per vessel can only serve as an approximation of the effort ceiling. From this analysis the average uptake of available days at sea over the time period 2008-2013 remained in the range of 36-38% in area A, 34-47% in the area B and 53-83% for the areas A and B combined. Only one Member State slightly exceeded the allowed limit for regulated gears in areas A and B combined in 2011 (Figure 5.1.7.3). No clear trend in average uptake could be revealed over the observed period.

According to the information submitted by member States, only Denmark has operated under the fully documented fisheries (FDF) scheme in the Baltic in 2012. The reported Danish catch of cod caught in fully documented fisheries with regulated gears amounted to 333 t in area A and 406 t in area B, representing 3% of the overall catch. A preliminary analyses of cod selectivity revealed that non-FDF fisheries were catching younger fish. However, the effects of different age reading methods applied in different national institutes remain unclear. Such preliminary results require further investigation.

Most cod landings stem from areas A and B. According to the available data area C plays only a marginal role in the present distribution pattern of cod landings in the Baltic (e.g. landings in 2013 in A+B = 44,252 tonnes; landings in area C = 71 tonnes, 0.2% of total). Cod discard rates are highest in area B, followed by area A.

Considering partial F estimates for cod in area A the stock is subject to overfishing and annual F reductions are not following the management plan but discard mortality is generally low. In recent years the effort regulated fisheries contribute more than 82% to the total fishing mortality. Since ICES did not accept the analytical assessment of the Eastern Baltic cod (Area B) in 2014, the STECF is not in the position to evaluate the partial fishing mortalities for this cod stock.

Effort regime evaluation for the Kattegat

In 2013 70% of the total effort was deployed by gears that are under effort regulation in the cod plan, dominated by the TR2 fishery (demersal trawls and seines with mesh 70-99mm). The effort deployed by regulated gears has decreased steadily from 2003 (by 57% between 2003 and 2013). Total effort in Kattegat has decreased by 46% between 2003 and 2013.

Fisheries in the Kattegat are almost exclusively conducted by Denmark and Sweden. There are three effort derogations in place in Kattegat for TR2, CPart13B, CPart13C and CPart11. All the Danish TR2 effort is under the derogation CPart13C from 2010 onwards. STECF notes that the uptake of the regulated gear TR2 exceeds the maximum effort levels defined in the annual TAC and quota regulations since 2010 as Member States applied additional effort allocations under article 13 of the cod plan. All other regulated gear categories in Kattegat are well below their respective effort base lines.

The Swedish regulated TR2 effort has decreased by 82% since 2003, partly due to a move towards the unregulated CPart11 category (achieves <1.5% cod catch by using a 35mm *Nephrops* sorting grid; introduced in 2003) which constituted 71% of the Swedish TR2 effort in 2013, and partly to an overall decrease in TR2 effort (38% since 2003).

The effort carried out by unregulated gears, including the Swedish *Nephrops* sorting grid under the derogation CPart11, has increased 43% between 2003 and 2013. It represents 30% of the total effort in 2013.

In 2013 the nominal effort (kW days at sea) deployed by small vessels (LOA<10m) constituted 13% of the total effort in the area.

STECF notes that information on fully documented fisheries FDF was only provided by Sweden and only for 2010. FDF fishing effort and catches appear negligible and are not evaluated further.

The table of international conversion factors is based on average CPUE (2011-2013). Red cells indicate imprecise values due to lack of adequate discard information, yellow cells indicate adequate discard information. The transfer factor between TR1 (donor gear) and TR2 (receiving gear) is believed to be underestimated since it is based on a TR2 CPUE with German cod discards still included (the allocation was based on the Swedish TR2 discard rate in quarter four, which was 99.7% due to a quota closure). If the German discards are removed from the calculation, the transfer factor TR1/TR2 would be 0.509.

Kattegat

	donor gear	receiving gear						2011-2013		
		GN1	GT1	LL1	TR1	TR2	TR3	CPUE	LPUE	
3a	GN1		1	1	1	1	1	200	27	
3a	GT1	0.005		1	0.017	0.008	0.111	1	1	
3a	LL1	0.005	1		0.017	0.008	0.111	1	1	
3a	TR1	0.295	1	1		0.48	1	59	13	
3a	TR2	0.615	1	1	1		1	123	36	
3a	TR3	0.045	1	1	0.153	0.073		9	9	

factor = CPUE donor/CPUE receiving
if factor > 1 then
factor = 1

if CPUE=0 or LPUE = 0 then
CPUE=1 or LPUE=1

STECF notes that that ICES did not provide an analytical assessment of cod in the Kattegat in 2014. STECF is therefore unable to provide analyses dealing with the partial fishing mortalities by fisheries (metiers), the respective correlations between partial fishing mortality and fishing effort and the review of reductions in fishing mortality of the effort regulated gear groups in relation to the cod plan provisions.

Effort regime evaluation for the Skagerrak, North Sea including 2EU and Eastern Channel

STECF notes that in this area, a substantial part of the effort is deployed by Non-European fleets (primarily Norway); this component is not accounted for in this report. Norwegian fishing effort is reported to ICES (ICES, 2013). Catch and effort data including the special conditions of the cod management plan in force since 2009 (CPart11 and CPart13) have been provided by all Member States with significant fishing activity in this area. Additionally, distinction is now provided across the various CPart13 specifications (A, B, or C).

The North Sea (area 3b2) is the main fishing area (79% of the total 2013 regulated effort in area 3b), followed by The English Channel (15%, 3b3), while the Skagerrak represents a smaller component (6%, 3b1).

In all three sub areas, regulated effort has decreased since 2003. The estimated overall reduction in effort (kW days at sea) in 2013 of regulated gears in the entire area 3b amounts to 43% compared to the average of 2004-2006 but was marginally higher (1%) compared to 2012.

Overall, the share of regulated gears to total effort in area 3b has also decreased regularly, down to 61% in 2013 on average (but no more than 45% in Skagerrak). In area 3b2 (North Sea), regulated effort is equally shared between beam trawls and demersal trawls/seines (52% and 43% of total 2013 regulated effort respectively). Small mesh beam trawling (80-119 mm, BT2) and demersal trawls/seines with larger mesh sizes (>=100mm, TR1) are the predominant fisheries. There is an increasing trend for large meshed beam trawls (BT1) in recent years. In the Eastern Channel, demersal trawls/seines are also the main gears (63% of the 2013 regulated effort in the area, mainly smaller mesh size 70-99mm TR2), but with beam trawls and passive gears representing important fisheries as well (20% and 16% of the 2013 regulated effort respectively). The main gears in management area 3b1 (Skagerrak) are demersal trawls/seines (86% of the 2013 regulated effort), with a predominance of TR2. However, there was a strong increase in Danish TR3 effort in 2013 compared to 2012.

The unregulated effort has increased in sub-areas 3b2 and 3b3 in 2013 compared to 2012. This, together with the general decreasing trend of regulated effort, means that unregulated effort now represents almost 40% of the total effort in area 3b. This is despite nearly all French TR1 effort being re-classified from the CPart11 exemption in 2012 back to under article 13B.

From 2003 to 2012 the effort of small boats (LOA<10m) gradually increased from 3% to 9% of the overall effort deployed in the entire area 3b (Skagerrak, North Sea and 2EU, Eastern Channel). Absolute effort has been slowly declining since 2010 however and in 2013, the effort from vessels <10m was 8% of the total effort in this area. Unregulated gears account for 60% of total effort from vessels <10m.

In 2012 and 2013 fully documented fisheries represented a similar proportion of the total effort (5.5% and 5.1% respectively). The importance of FDF in the main cod gear (TR1) also remained static (28.8% in 2012, 28.4% in 2013).

Overall, cod discard rates have decreased after 2008 especially for TR1. However, discard rates for TR1 CPart13c showed a substantial increase in 2013 compared to 2012. High discard rates can still be found for TR2 gears. TR2 CPart13c shows very high discard rates in the North Sea including in 2013. In the Eastern Channel (area 3b3) discard information is very scarce and not representative. Catches from unregulated gears do not play a major role. Highest landings from unregulated gears come from unregulated Otter trawls in the Skagerrak.

Of non-cod species anglerfish, and saithe landings have decreased since 2009 while hake and plaice landings have increased. Whitefish landings in TR2 are globally low compared to TR1 landings but discard rates are higher; discards are a consistent proportion of total catch (~40-45%) for TR2. *Nephrops* landings have decreased in recent years. Catches with unregulated gears of sole and plaice are very small compared with the total catch.

For cod, TR1 and TR2 contribute more than 80% of the catches in area 3b combined in 2013. The most important gears for plaice are BT2, TR1 and TR2, while for sole BT2 and GT1 contribute to more than 80% of the catches. For plaice BT1 has higher landings than TR2 but discards are much higher for TR2.

The table of international conversion factors is based on average CPUE (2011-2013). Red cells indicate imprecise values due to lack of adequate discard information, yellow cells indicate adequate discard information available and green cells indicate representative discard information available.

	donor gear	receiving gear							
		BT1	BT2	GN1	GT1	LL1	TR1	TR2	TR3
3b1	BT1		1	0.039	0.059	0.103	0.05	0.088	0.63
3b1	BT2	0.014		0.001	0.001	0.001	0.001	0.001	0.01
3b1	GN1	1	1		1	1	1	1	1
3b1	GT1	1	1	0.661		1	0.849	1	1
3b1	LL1	1	1	0.377	0.571		0.484	0.861	1
3b1	TR1	1	1	0.779	1	1		1	1
3b1	TR2	1	1	0.438	0.663	1	0.563		1
3b1	TR3	1	1	0.062	0.093	0.163	0.079	0.14	

2011-2013	
CPUE	LPUE
73	73
1	1
1885	1855
1246	1214
711	711
1468	1118
826	414
116	116

factor = CPUE donor/CPUE receiving
if factor > 1 then
factor = 1

if CPUE=0 or LPUE = 0 then
CPUE=1 or LPUE=1

	donor gear	receiving gear							
		BT1	BT2	GN1	GT1	LL1	TR1	TR2	TR3
3b2	BT1		1	0.42	1	0.47	0.294	1	1
3b2	BT2	0.111		0.047	0.19	0.052	0.033	0.201	1
3b2	GN1	1	1		1	1	0.699	1	1
3b2	GT1	0.585	1	0.246		0.275	0.172	1	1
3b2	LL1	1	1	0.893	1		0.625	1	1
3b2	TR1	1	1	1	1	1		1	1
3b2	TR2	0.554	1	0.233	0.947	0.261	0.163		1
3b2	TR3	0.009	0.083	0.004	0.016	0.004	0.003	0.017	

2011-2013	
CPUE	LPUE
323	265
36	33
769	731
189	174
687	685
1100	917
179	75
3	3

factor = CPUE donor/CPUE receiving
if factor > 1 then
factor = 1

if CPUE=0 or LPUE = 0 then
CPUE=1 or LPUE=1

	donor gear	receiving gear							2011-2013		
		BT1	BT2	GN1	GT1	LL1	TR1	TR2	TR3	CPUE	LPUE	factor = CPUE donor/CPUE receiving
3b3	BT1		1	0.233	1	1	0.436	1	1	88	88	if factor > 1 then
3b3	BT2	0.216		0.05	0.26	0.704	0.094	0.229	1	19	18	factor = 1
3b3	GN1	1	1		1	1	1	1	1	378	378	
3b3	GT1	0.83	1	0.193		1	0.361	0.88	1	73	70	if CPUE=0 or LPUE = 0 then
3b3	LL1	0.307	1	0.071	0.37		0.134	0.325	1	27	27	CPUE=1 or LPUE=1
3b3	TR1	1	1	0.534	1	1		1	1	202	196	
3b3	TR2	0.943	1	0.22	1	1	0.411		1	83	75	
3b3	TR3	0.148	0.684	0.034	0.178	0.481	0.064	0.157		13	13	

STECF notes that with respect to partial F values on cod the overall long term F target of 0.4 stipulated by the cod management plan has been reached. However, because the stock is still below 150 000 tonnes a fishing mortality around 0.2 would be needed according to the plan.

Effort regime evaluation for the West of Scotland

The fishery West of Scotland is primarily an otter trawl fishery; beam trawls and static gears are hardly used. Effort within regulated gears is 58.8% less in 2013 compared to 2003. Regulated effort by trawl and seine gears (TR gears under Coun. Reg. (EC) 1342/2008) shows a long term decrease in effort and fell to its lowest level in the time series in 2011, but was stable between 2011 and 2013 for those nations reporting in both years.

Unregulated effort has been increasing since 2010, and has exceeded regulated effort since 2011 and the difference has increased again in 2013.

The most important category in terms of cod catch and landings is TR1 which over the period 2011-2013 on average, accounted for 94% and 87% of the total cod landings and catches by weight respectively from VIa. The second most important gear category is TR2, which can be seen to be a gear category with *Nephrops* as the dominant species in the landings. Based on relative contributions TR1 is the only gear group where the percentage cumulative cod catch in 2013 exceeded 20% and thus considered subject to annual effort adjustments (Coun. Reg. 1342/2008, art.12(4)).

The table of international conversion factors is based on average CPUE (2011-2013). Discard data are scarce for many regulated gear groups but have been interpreted as representative for TR1 and TR2. Red cells indicate imprecise values due to lack of adequate discard information, green cells indicate representative discard information available.

West of Scotland

	donor gear	receiving gear							2011-2013		
		BT1	BT2	GN1	LL1	TR1	TR2	TR3	CPUE	LPUE	factor =
3d	BT1		1	0.25	1	0.003	0.023	1	1	1	if factor > 1 then
3d	BT2	1		0.25	1	0.003	0.023	1	1	1	factor = 1
3d	GN1	1	1		1	0.013	0.093	1	4	4	
3d	LL1	1	1	0.25		0.003	0.023	1	1	1	if CPUE=0 or LPUE = 0 then
3d	TR1	1	1	1	1		1	1	319	33	CPUE=1 or LPUE=1
3d	TR2	1	1	1	1	0.135		1	43	2	
3d	TR3	1	1	0.25	1	0.003	0.023		1	1	

For the most significant gear groups catching cod the correlation between partial F of cod and estimated fishing effort of regulated gears is statistically significant but negative. STECF is unable to determine the reason for this. Assessed F of cod in VIa remains high indicating the management measures in place in VIa have not been successful in achieving a reduction in fishing mortality.

With respect to Article 13.2 of the cod long term management plan

- Article 13.2.a has not been adopted by any member state
- Article 13.2b fisheries are estimated to account for less than 1% of the F total in 2013.
- Article 13.2c; in 2013 high discards from Scottish fisheries under 13.2c meant this category contributed nearly 50% of the F total in 2013.
- Article 13.2d; the partial F for this one category is between 0.57 and 0.6 (58% of F total). Discards have made the much greater contribution to fishing mortality in recent years.

Effort regime evaluation for the Irish Sea

For boats LOA>=10m there has been a 37% decline in Irish Sea nominal effort (kW*days at sea) since 2000, the majority of which occurred between 2003 and 2009. Since 2009 effort has remained relatively constant.

Irish Sea fisheries are predominantly demersal trawling and seining (TR group). Combined, TR effort mirrors the overall effort trend representing 55-60% of total Irish Sea effort. As part of regulated gears, the TR group accounted for over 70% of all effort from 2003, (over 80% since 2008). Within the TR group, the TR2 category (70-99mm mesh sizes) dominates. The majority of TR2 effort is now carried out under Article 13 of Coun. Reg. 1342/2008. A small amount of effort is reported under Article 11 of the regulation (CPart11) since 2010, 4-9%.

During 2006-2013, small boats' effort (LOA<10m) varied without a clear trend and constituted among 12-15% of the overall effort deployed. The majority of effort by the under 10m vessels is directed at pots and traps.

STECF notes Ireland resubmitted landings data from 2009-2013 in which cod landings recorded in ICES rectangles 33E2 and 33E3 of VIIa have been reassigned to ICES division VIIg due to uncertainty in catch origin. STECF also notes discard data is not consistently available for all years or all categories, resulting in distorted CPUE trends and uncertainty in gear ranking by catch. TR2 gear has been the most important for cod landings since 2011.

The table of international conversion factors is based on average CPUE (2011-2013). Discard data are scarce for many regulated gear groups but have been interpreted as representative for BT2, TR1 and TR2. Red cells indicate imprecise values due to lack of adequate discard information, green cells indicate representative discard information available.

Irish Sea

	donor gear	receiving gear							2011-2013		
		BT2	GN1	GT1	LL1	TR1	TR2	TR3	CPUE	LPUE	factor =
3c	BT2		0.269	0.338	1	0.284	1	1	89	60	if factor > 1 then
3c	GN1	1		1	1	1	1	1	331	331	factor = 1
3c	GT1	1	0.795		1	0.84	1	1	263	263	
3c	LL1	0.011	0.003	0.004		0.003	0.013	1	1	1	if CPUE=0 or LPUE = 0 then
3c	TR1	1	0.946	1	1		1	1	313	312	CPUE=1 or LPUE=1
3c	TR2	0.888	0.239	0.3	1	0.252		1	79	31	
3c	TR3	0.011	0.003	0.004	1	0.003	0.013		1	1	

STECF EWG 14-13 notes that the correlations between the summed partial Fs for landings of the regulated fisheries and their estimated fishing efforts are almost all non-significant.

Effort regime evaluation for the Celtic Sea

The review of trends in fisheries-specific effort and catches in the Celtic Sea is presented at the level of aggregation as defined in the multi-annual cod plan, to allow managers to evaluate the data with the view to the potential extension of the cod plan to include the Celtic Sea. The Celtic Sea is defined into two management areas, i.e. ICES Sub-divisions 7bcefghjk and ICES Sub-divisions 7fg.

Analysis of the larger area 7bcefghjk is affected by the fact Spanish data are only included for 2012 and 2013 as no data for earlier periods have been submitted by the Spanish Authorities. Area 7fg is only affected to a minor extent.

In 7bcefghjk in terms of kW*days in 2013 France contributed 37%, Ireland 20%, England and Wales 15%, Spain 8%, the Netherlands 8%, Belgium 5%, Scotland 3%, Germany 2% and Denmark 1%.

The demersal fisheries are dominated by the gears TR1, TR2 and BT2 (24%, 18% and 10% of total Celtic Sea effort respectively). In recent years (since 2008) fishing effort has been relatively stable, with the increase for most gears from 2012 due to the inclusion of Spanish data from 2012. The exception is TR1 effort which has been increasing since 2009.

For "unregulated" gears most of the effort is Dutch, French, Danish and Irish pelagic trawl fisheries (17% of total Celtic Sea effort), with a recent (since 2009) increase of Danish and Irish pelagic boats fishing for boarfish in the Celtic Sea.

The overall effort in 7fg decreased between 2003 and 2013, however, in the last two years the effort showed an increase to levels similar to 2004/2005. This increase is mainly due to an increase in effort by the demersal trawlers (TR). The effort in unregulated gears has been increasing steadily since 2006 until 2012, but in 2013 the unregulated gears effort showed a decrease, mainly due to the reduction of effort using pots.

STECF EWG 14-13 notes that the coverage of discard information for gears catching cod in the wider Celtic Sea is often low. In most cases the discard coverage index is either C (<33% of landings having discard information) or B (≥ 33% < 66%); only the relatively low cod catching gears BT2 and TR3 have category A (> 66%).Discard coverage from ICES Divisions VIIfg is better.

Landings and estimated discards of cod (where available) for the main gear in the Celtic Sea catching cod (TR1) have increased significantly since 2010, with 2012 landings double the landings in 2011. This reflects the particularly strong 2010 year class (the largest since 1987) entering the fishery and increased quota available. Landings of anglerfish, haddock and whiting have also increased since 2011 from this gear.

The contribution to Celtic sea cod landings from ICES Divisions VIIfg has been 60-70% in all years (except 2011) since 2003.

CPUE for cod has increased since 2011 in all main regulated gears, consistent with the strong 2010 year class of cod.

For the wider Celtic sea TR1 gear is the main gear landing anglerfish and cod; TR2 is the main gear catching *Nephrops*; BT2 is the main gear landing plaice and sole, while LL1 is the main gear landing hake. For ICES Divisions VIIfg TR1 is the main gear landing anglerfish, cod and hake; TR2 is the main gear landing *Nephrops*, while BT2 is the main gear landing plaice and sole.

Effort regime evaluation for southern hake and Norway lobster

STECF notes that the major data deficiency in its analyses is the lack of Spanish data in 2010 and 2011, (99% of kWdays in the area comes from Spanish and Portuguese vessels). Furthermore it is important to note that Spanish fishing vessels using regulated gears were not granted fishing effort derogations by the Spanish Authorities in 2012 and 2013 as provided for in Annex IIB to the annual TAC and Quota regulations.

Passive gears (3b, 3c and 3t) accounted for approximately 27% of all effort in 2012 and 2013. However, such results have a limited meaning regarding the relative fishing pressure exerted by these fleets, since the unit kW*day does not take into account the number of hooks deployed by longlines or the area covered and soak time of passive nets.

In 2012 and 2013, about 19% of the effort was assigned to non-regulated gears ("3t" and "none" gears), of which trammel nets ("3t") contribute 8% to the overall effort deployed. Most non-regulated effort is deployed by gears that do not target hake, *Nephrops* or anglerfish

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For small vessels (LOA<10m) Portuguese data do not provide gear or fishery specific information. France and Spain have provided data for 2012 and 2013 only.

STECF notes landings of hake reported to STECF and to the ICES assessment working group were about the same until 2009 but, in 2012 and 2013, landings reported to STECF are 46% and 66% of the values included in the ICES assessment. This is due to much lower landings reported in logbooks than in sales notes and high values for unallocated catches estimated by ICES in these years.

Regulated trawlers (gear group 3A) are most important for hake landings (49% for Spain and Portugal combined). The Spanish regulated trawlers discarded 91% of the total discarded volume of hake. Most important unregulated gear was trammel net (landing 6.6% of hake total weight).

Spanish and Portuguese regulated trawls landed 91% of total *Nephrops* landings in.

The discard coverage index for the main gears catching hake and *Nephrops* was classified as 'A' (representative discard information) for all years (hake) and most years (*Nephrops*).

Effort regime evaluation for Western Channel sole

STECF notes the majority of fishing effort deployed in the Western Channel is effort that is not being regulated by the Management plan for sole in Division VIIe. The two regulated gear groups, beam trawls (80mm and above; labelled '3a') and the static nets, (Gill and trammel nets up to 219mm mesh size; labelled '3b') account for only a relatively small proportion (about 15%) of the overall deployed effort.

Effort in the regulated beam trawl fleets (gear 3a) decreased gradually from 2% above the 2004-2006 baseline level in 2004 to 37% below that level in 2009 and thereafter has fluctuated between 30% and 37% below the 2004-2006 level. Effort in the regulated static gear (gear 3b) dropped substantially from 9% above the 2004-2006 level in 2004 to 77% below the 2004-2006 level in 2013. The effort from the vessels <10m fluctuates between 13% and 25% of the effort deployed by the vessels >10m.

STECF notes that only UK (England and Wales) have had vessels operating under an FDF scheme in the Western Channel (2012 and 2013). In 2013 9 vessels (7 in 2012) were operational in the FDF fisheries using the regulated beam trawl gear (3a) and one vessel (same as 2012) using the unregulated beam trawl gear (mesh size <80mm). The effort of the FDF fisheries to the total deployed effort by the regulated beamers (3a) and unregulated beamers amount to 24% and 5% respectively (17% and 1% in 2012).

STECF estimated the uptake of the permitted fishing effort in units of days at sea per vessel. The results should be interpreted with caution as the estimated ceilings are based on number of active vessels times the number of days allowed. STECF notes that the number of active vessels and their associated days at sea may be overestimated (multiple counted) if they changed regulated gears. For the regulated beam trawl fleet (3a), the English series indicate an increasing uptake (47% - 95%) over time whereas the Belgian and the French regulated beam trawl fleets show a stable uptake at a low (around 10%) and high level (around 65%) respectively. The English regulated static gear (3b) show a slight increase in uptake (20%-45%) over time whereas the French regulated static gear shows a stable uptake of around 50%. However, uptake by both French fleets fell sharply in 2013 to approximately 30% and less than 40% respectively.

National amendments to the effort regulations were granted to the UK in 2012 and to the UK and France in 2013. This has the effect of increasing the maximum permitted fishing effort and lowering the percentage uptake of effort. In 2012 UK beam trawl fleet effort uptake fell from 95% to 75% as a result of the extra days allocated. In 2013 the effect was a change in uptake from 85% to 67%. The changes in French uptake were a reduction from 31% to 29% for the beam trawl fleet and a reduction from 38% to 35% for the passive gears fleet.

STECF notes that the aggregation for the fill-ins of the discard estimates for the unregulated gears in area 7e – which are responsible for substantial catches of the main species - sometimes do not reflect the real discard values for these unregulated gears. Member States provide discard estimates specific for gear and mesh-size. The aggregation only takes account of the gear and not the mesh-size. Therefore, sometimes discard rates for e.g. otter trawls with mesh-size 16-32 mm are used as a fill-ins for otter trawls with mesh size 80-89 mm. Regulated gears are linked to gear and mesh-size and therefore do represent true discard estimates when fill-ins are used.

In 2013 the unregulated gears account for 30% of overall sole landings of which the otter trawl fleet is responsible for 26% of these landings (the percentage of sole landings caught by unregulated gear has been ≥ 27% in all years). Unregulated gears accounted for 35% of plaice landings and 88% of cod landings in 2013, (otter trawl accounted for 33% and 83% respectively).

CPUE of sole and plaice from beam and static gears is increasing. CPUE and LPUE of cod by otter trawls and dredges increased sharply between 2010 and 2011 (with CPUE preceding LPUE) but have fallen again, possibly in connection with a strong year class.

Effort regime evaluation for the Western Waters and Deep Sea

In accordance with the Terms of reference, the Report presents trends in effort for defined fisheries (major gear groups) for 18 management areas within the convention areas of ICES and CECAF. STECF notes that discard information is often scarce.

Bottom trawl effort is concentrated in ICES Area IVa as well as the Continental shelf and slope to the west and southwest of Ireland and the UK.

Pelagic trawling was concentrated to the west of Ireland, and to the west and north of Scotland in the mid 2000s. This effort decreased greatly between 2007 and 2009, increased in

2010 before reducing again in 2011 and 2012. In 2013 effort increased in Areas IVa and IXa, but decreased in areas VIIIa and VIIIb.

Longline effort was concentrated on the shelf and slope between Shetland and Portugal but has been in decline in recent years.

In the mid 2000s gill net effort was concentrated in the Celtic sea and Porcupine Bank. Due to current restrictions in the use of deep water gill nets much of this effort is now concentrated in the Celtic sea, with some effort in the North sea, west of Scotland and the Bay of Biscay. In 2013 effort increased in areas VIIg and VIb but decreased in area IVb.

Beam trawling is concentrated in the Celtic sea and the western English Channel. While beam trawls are not a deep water gear some of the species caught are classified under Annex 2.

Effort regime evaluation for the Bay of Biscay

STECF EWG-14-13 notes that analyses and trends presented in the Report include data from Spain for 2012 and 2013. However, Spain did not provide data for previous years and this is important to take into account when interpreting the trends in fishing effort and landings in the tables and graphs presented in the Report.

The multiannual plan for the sustainable exploitation sole in the Bay of Biscay (R (EC) 388/2006) prescribes maximum annual fishing capacity for Member States' vessels that hold a special permit to fish. The Report provides fisheries-specific effort data for the Northern Bay of Biscay (ICES Div. VIIIa) and the southern Bay of Biscay (ICES Div. VIIIb) separately.

In 8a-BoB, 90% of 2013 effort is French, 7% Spain, 1% Belgium and 1% Netherlands. The main French fisheries are otter trawl, trammel and gill net and pelagic trawl. The main Spanish fisheries are longline, otter trawl and gill net. In 8b-BoB, 67% of effort in 2013 is French, 25% Spanish, 6% Belgium and 1% each from the Netherlands and England. The main French fisheries are otter trawl, trammel and gill net, longline and pelagic trawl. The main Spanish fisheries are otter trawl, pelagic seine and longline.

Due to data deficiencies, STECF was unable to fully evaluate the effort regime for sole in the Bay of Biscay. Spain provided data on fishing capacity in the unit of gross tonnage (GT) as requested in the data call, for the year 2012 only; France provided data in units of kW not GT.

Between 2012 and 2013 (the two years for which Spanish data is available) overall effort in units of kW days at sea fell by 10% in area VIIIa and increased by 1% in VIIIb.

Almost all effort of small boats is French. No Spanish, Belgium nor Netherlands data are available for small boats. Also the effort data available for small boats before 2010 seem to be incomplete. Small boats represent, over the last four years, almost 20% of the effort deployed by the large vessels in 8a and 10% in 8b.

The vast majority of sole catches are taken by French vessels, in area 8a the breakdown by fleet is trammel nets (65% in 2013, increasing on the period), otter trawls (31% in 2013, stable on the period), and gill nets (3% in 2013, decreasing on the period); in 8b trammel nets (64% in 2013, increasing on the period), otter trawls (17% in 2013, stable on the period) and gill nets (2% in 2013, decreasing on the period).

STECF notes that only approximately 40% of the total F derived from ICES assessments of sole in the Bay of Biscay is accounted for by the partial Fs derived for regulated gears from the data submitted to the EWG.

REPORT TO THE STECF

EXPERT WORKING GROUP ON
FISHING EFFORT REGIME EVALUATIONS
PART 2 (EWG-14-13)

BARZA, ITALY, 29 September - 03 October 2014

This report does not necessarily reflect the view of the STECF and the European Commission and in no way anticipates the Commission's future policy in this area

1 EXECUTIVE SUMMARY

STECF EWG 14-13 notes that it has addressed the large majority of Terms of Reference (ToR) regarding the requested fishing effort regime evaluations in the

1. Eastern and Western Baltic,
2. the Kattegat,
3. the Skagerrak, North Sea, European waters in ICES Div.2 and the Eastern Channel,
4. to the West of Scotland,
5. Irish Sea,
6. Celtic Sea,
7. Atlantic waters off the Iberian Peninsula,
8. Western Channel,
9. Western Waters and Deep Sea
10. Bay of Biscay.

The EWG 14-13 Report provides updated estimates of trends in fishing effort, landings and discards by species, CPUE and LPUE by fisheries and species, partial fishing mortalities for effort regulated and non-regulated fisheries by Member States, spatio-temporal patterns in cod catchability, and detailed evaluations of the national implementation as regards fishing effort derogations granted under the provisions of article 13 of the new cod plan (Counc. Reg. No 1342/2008).

STECF EWG 14-13 notes that the means of data aggregation has been transferred to new software architecture. There are three motivations for this

1. Greater data security as all data is processed on a secure server.

2. Increased quality assurance through the exclusive use of the dedicated JRC upload facility.

3. Greater transparency of the data input and processing through a documented upload facility and processing algorithm and because of point two.

All data used by the EWG 14-13 was submitted through a revised upload facility and all processing was performed on the JRC secure server. STECF further notes that data processing time has also been reduced considerably. This is a welcome development as re-submissions are sometimes required during EWG meetings resulting in re-compilation of aggregated data. These benefits are likely to become increasingly apparent as the quantity of data for processing continues to increase.

Because of software problems when aggregating data it was not possible for the EWG to perform comparative analyses regarding cod and sole selectivity of fully documented fisheries (FDF) and fisheries not participating in FDF schemes.

2014 DCF Fishing Effort Data Call

The EWG 14-13 Report is based on data submitted by Member States in response to the 2014 DCF fishing effort data call in 2014. STECF notes a general improvement in Member States' submissions with regard to data completeness and quality as well as improved compliance with deadlines.

STECF EWG 14-13 notes, however, that re-submissions of data unconnected to requested corrections and made days before the second EWG seriously affected the EWG-14-13. Data was being re-processed on the second last day of the meeting. For this reason EWG-14-13 had to concentrate on producing key tables of the report. It was attempted to prevent this situation by setting a 'gentleman's agreement' deadline for re-submissions set for two weeks before the second meeting. Some countries respected this, others ignored it.

STECF EWG 14-13 notes that the new institutional procedures for data processing compound the problem of late re-submissions because of the dependency of the EWG on the facilities at the JRC and greater time elapsed between error detection and availability of re-processed data. The new procedures, however, do ensure greater security, reproducibility and traceability.

The EWG will continue to set a deadline for re-submissions in future. STECF EWG 14-13 advises the Commission to support initiatives to prevent 'last minute' re-submissions. STECF EWG 14-13 also advises that given the new data processing system future EWG meetings will benefit from continuity of IT support within the JRC.

STECF EWG 14-13 notes that the estimation of fisheries specific international landings and discards was devised in relation to the cod recovery plan (Reg (EC) 423-2004) and has remained unchanged. Subsequent to the first assessments of effort regimes areas covered by different management plans have been added to the remit of the EWG and the combination of data fields used to identify fleet segments for 'fill-ins' of discard information can be inappropriate (too highly aggregated) when used for these areas (Iberian peninsula). Problems have also been identified when gears unregulated by the effort management regime take a significant proportion of the catch of species of greatest concern in the area (Western Channel). STECF EWG 14-13 advises that revised methodology for estimation of international discards be considered for some of the fishing effort regimes.

STECF EWG 1413 notes that the use of CPUE conversion factors can be questioned from a scientific point of view. The estimated CPUEs are not only influenced by the potential of a certain gear and mesh size to catch a certain species but also to an extent by the targeting behaviour of fleets and in which area they operate. For example, the large difference in CPUE for cod between TR1 and TR2 is to an unknown extent influenced by the fact that TR1 is used to fish for cod while cod is only a bycatch in the Nephrops TR2 fisheries. It remains unclear what would be the catchability of TR2 when used to target cod. Therefore, the CPUEs calculated in this report do not reflect the theoretical potential of a certain gear category to catch cod. Such estimates could only be derived from gear trials applying different gears in the same area. In addition, gears are used for different kinds of fisheries in different areas. For example, TR1 gears are used to fish for haddock and cod but also, in the central North Sea, to target plaice. These fisheries have different discard rates and CPUEs for cod that cannot be distinguished in the current transfer coefficient calculations.

STECF EWG 14-13 notes that fisheries-specific parameters for the various fishing effort regimes can be downloaded as digital Appendixes to the present report from the EWG 14-13 web page: https://stecf.jrc.ec.europa.eu/web/stecf/ewg1413.

Effort regime evaluation for the Baltic

For regulated gears in accordance with Council Regulation (EC) 1097/2007 and unregulated gears combined the total effort deployed in the Baltic in 2013was 41% lower compared to 2004 but 25% higher compared with 2012.

Deployed effort of regulated gears in cod plan areas A (subdivisions 22-24), B (subdivisions 25-28) and C (subdivisions 29-32) declined between 2004 and 2009 but fluctuated without clear trend since.

For small boats <8m LOA, data from Estonia was unavailable and data from Finland could not be used. Of the usable data the majority of effort was distributed between non-regulated gill nets (46%), pots (23%) and regulated gill nets (12%)

STECF undertook a provisional quantitative analysis regarding the estimation of effort deployed in units of days at sea by Member State, and compared the national uptake with the calculated maximum effort available. STECF notes that its approach to estimate the maximum days at sea available per year and Member State from the product of its number of active vessels using one of the regulated gears times the days at sea per vessel can only serve as an approximation of the effort ceiling. From this analysis the average uptake of available days at sea over the time period 2008-2013 remained in the range of 36-38% in area A, 34-47% in the area B and 53-83% for the areas A and B combined. Only one Member State slightly exceeded the allowed limit for regulated gears in areas A and B combined in 2011 (Figure 5.1.7.3). No clear trend in average uptake could be revealed over the observed period.

According to the information submitted by member States, only Denmark has operated under the fully documented fisheries (FDF) scheme in the Baltic in 2012. The reported Danish catch of cod caught in fully documented fisheries with regulated gears amounted to 333 t in area A and 406 t in area B, representing 3% of the overall catch. A preliminary analyses of cod selectivity revealed that non-FDF fisheries were catching younger fish. However, the effects of different age reading methods applied in different national institutes remain unclear. Such preliminary results require further investigation.

Most cod landings stem from areas A and B. According to the available data area C plays only a marginal role in the present distribution pattern of cod landings in the Baltic (e.g. landings in 2013 in A+B = 44,252 tonnes; landings in area C = 71 tonnes, 0.2% of total). Cod discard rates are highest in area B, followed by area A.

Considering partial F estimates for cod in area A (Western Baltic) the stock is subject to overfishing and annual F reductions are not following the management plan but discard mortality is generally low. In recent years the effort regulated fisheries contribute more than 82% to the total fishing mortality. Since ICES did not accept the analytical assessment of the Eastern Baltic cod (Area B) in 2014, the STECF EWG 14-13 was not in the position to evaluate the partial fishing mortalities for this cod stock.

Effort regime evaluation for the Kattegat

In 2013 70% of the total effort was deployed by gears that are under effort regulation in the cod plan, dominated by the TR2 fishery (demersal trawls and seines with mesh 70-99mm). The effort deployed by regulated gears has decreased steadily from 2003 (by 57% between 2003 and 2013). Total effort in Kattegat has decreased by 46% between 2003 and 2013.

Fisheries in the Kattegat are almost exclusively conducted by Denmark and Sweden. There are three effort derogations in place in Kattegat for TR2, CPart13B, CPart13C and CPart11. All the Danish TR2 effort is under the derogation CPart13C from 2010 onwards. STECF notes that the uptake of the regulated gear TR2 exceeds the maximum effort levels defined in the annual TAC and quota regulations since 2010 as Member States applied additional effort allocations under article 13 of the cod plan. All other regulated gear categories in Kattegat are well below their respective effort base lines.

The Swedish regulated TR2 effort has decreased by 82% since 2003, partly due to a move towards the unregulated CPart11 category (achieves <1.5% cod catch by using a 35mm Nephrops sorting grid; introduced in 2003) which constituted 71% of the Swedish TR2 effort in 2013, and partly to an overall decrease in TR2 effort (38% since 2003).

The effort carried out by unregulated gears, including the Swedish Nephrops sorting grid under the derogation CPart11, has increased 43% between 2003 and 2013. It represents 30% of the total effort in 2013.

In 2013 the nominal effort (kW days at sea) deployed by small vessels (LOA<10m) constituted 13% of the total effort in the area.

STECF EWG-14-13 notes that information on fully documented fisheries FDF was only provided by Sweden and only for 2010. FDF fishing effort and catches appear negligible and are not evaluated further.

The table of international conversion factors is based on average CPUE (2011-2013). Red cells indicate imprecise values due to lack of adequate discard information, yellow cells indicate adequate discard information. The transfer factor between TR1 (donor gear) and TR2 (receiving gear) is believed to be underestimated since it is based on a TR2 CPUE with German cod discards still included (the allocation was based on the Swedish TR2 discard rate in quarter four, which was 99.7% due to a quota closure). If the German discards are removed from the calculation, the transfer factor TR1/TR2 would be 0.509.

Kattegat

	donor gear	receiving gear						2011-2013		
		GN1	GT1	LL1	TR1	TR2	TR3	CPUE	LPUE	
3a	GN1		1	1	1	1	1	200	27	
3a	GT1	0.005		1	0.017	0.008	0.111	1	1	
3a	LL1	0.005	1		0.017	0.008	0.111	1	1	
3a	TR1	0.295	1	1		0.48	1	59	13	
3a	TR2	0.615	1	1	1		1	123	36	
3a	TR3	0.045	1	1	0.153	0.073		9	9	

factor = CPUE donor/CPUE receiving
if factor > 1 then
factor = 1

if CPUE=0 or LPUE = 0 then
CPUE=1 or LPUE=1

STECF notes that that ICES did not provide an analytical assessment of cod in the Kattegat in 2014. STECF EWG 14-13 is therefore unable to provide analyses dealing with the partial fishing mortalities by fisheries (metiers), the respective correlations between partial fishing mortality and fishing effort and the review of reductions in fishing mortality of the effort regulated gear groups in relation to the cod plan provisions.

Effort regime evaluation for the Skagerrak, North Sea including 2EU and Eastern Channel

STECF notes that in this area, a substantial part of the effort is deployed by Non-European fleets (primarily Norway); this component is not accounted for in this report. Norwegian fishing effort is reported to ICES (ICES, 2013). Catch and effort data including the special conditions of the cod management plan in force since 2009 (CPart11 and CPart13) have been provided by all Member States with significant fishing activity in this area. Additionally, distinction is now provided across the various CPart13 specifications (A, B, or C).

The North Sea (area 3b2) is the main fishing area (79% of the total 2013 regulated effort in area 3b), followed by The English Channel (15%, 3b3), while the Skagerrak represents a smaller component (6%, 3b1).

In all three sub areas, regulated effort has decreased since 2003. The estimated overall reduction in effort (kW days at sea) in 2013 of regulated gears in the entire area 3b amounts to 43% compared to the average of 2004-2006 but was marginally higher (1%) compared to 2012.

Overall, the share of regulated gears to total effort in area 3b has also decreased regularly, down to 61% in 2013 on average (but no more than 45% in Skagerrak). In area 3b2 (North Sea), regulated effort is equally shared between beam trawls and demersal trawls/seines (52% and 43% of total 2013 regulated effort respectively). Small mesh beam trawling (80-119 mm, BT2) and demersal trawls/seines with larger mesh sizes (>=100mm, TR1) are the predominant fisheries. There is an increasing trend for large meshed beam trawls (BT1) in recent years. In the Eastern Channel, demersal trawls/seines are also the main gears (63% of the 2013 regulated effort in the area, mainly smaller mesh size 70-99mm TR2), but with beam trawls and passive gears representing important fisheries as well (20% and 16% of the 2013 regulated effort respectively). The main gears in management area 3b1 (Skagerrak) are demersal trawls/seines (86% of the 2013 regulated effort), with a predominance of TR2. However, there was a strong increase in Danish TR3 effort in 2013 compared to 2012.

The unregulated effort has increased in sub-areas 3b2 and 3b3 in 2013 compared to 2012. This, together with the general decreasing trend of regulated effort, means that unregulated effort now represents almost 40% of the total effort in area 3b. This is despite nearly all French TR1 effort being re-classified from the CPart11 exemption in 2012 back to under article 13B.

From 2003 to 2012 the effort of small boats (LOA<10m) gradually increased from 3% to 9% of the overall effort deployed in the entire area 3b (Skagerrak, North Sea and 2EU, Eastern

Channel). Absolute effort has been slowly declining since 2010 however and in 2013, the effort from vessels <10m was 8% of the total effort in this area. Unregulated gears account for 60% of total effort from vessels <10m.

In 2012 and 2013 fully documented fisheries represented a similar proportion of the total effort (5.5% and 5.1% respectively). The importance of FDF in the main cod gear (TR1) also remained static (28.8% in 2012, 28.4% in 2013).

Overall, cod discard rates have decreased after 2008 especially for TR1. However, discard rates for TR1 CPart13c showed a substantial increase in 2013 compared to 2012. High discard rates can still be found for TR2 gears. TR2 CPart13c shows very high discard rates in the North Sea including in 2013. In the Eastern Channel (area 3b3) discard information is very scarce and not representative. Catches from unregulated gears do not play a major role. Highest landings from unregulated gears come from unregulated Otter trawls in the Skagerrak.

Of non-cod species anglerfish and saithe landings have decreased since 2009 while hake and plaice landings have increased. Whitefish landings in TR2 are globally low compared to TR1 landings but discard rates are higher; discards are a consistent proportion of total catch (~40-45%) for TR2. Nephrops landings have decreased in recent years. Catches with unregulated gears of sole and plaice are very small compared with the total catch.

For cod, TR1 and TR2 contribute more than 80% of the catches in area 3b combined in 2013. The most important gears for plaice are BT2, TR1 and TR2, while for sole BT2 and GT1 contribute to more than 80% of the catches. For plaice BT1 has higher landings than TR2 but discards are much higher for TR2.

The table of international conversion factors is based on average CPUE (2011-2013). Red cells indicate imprecise values due to lack of adequate discard information, yellow cells indicate adequate discard information available and green cells indicate representative discard information available.

	donor gear	receiving gear								2011-2013		
		BT1	BT2	GN1	GT1	LL1	TR1	TR2	TR3	CPUE	LPUE	
3b1	BT1		1	0.039	0.059	0.103	0.05	0.088	0.63	73	73	factor = CPUE donor/CPUE receiving
3b1	BT2	0.014		0.001	0.001	0.001	0.001	0.001	0.01	1	1	if factor > 1 then
3b1	GN1	1	1		1	1	1	1	1	1885	1855	factor = 1
3b1	GT1	1	1	0.661		1	0.849	1	1	1246	1214	
3b1	LL1	1	1	0.377	0.571		0.484	0.861	1	711	711	if CPUE=0 or LPUE = 0 then
3b1	TR1	1	1	0.779	1	1		1	1	1468	1118	CPUE=1 or LPUE=1
3b1	TR2	1	1	0.438	0.663	1	0.563		1	826	414	
3b1	TR3	1	1	0.062	0.093	0.163	0.079	0.14		116	116	

	donor gear	receiving gear								2011-2013		
		BT1	BT2	GN1	GT1	LL1	TR1	TR2	TR3	CPUE	LPUE	factor = CPUE donor/CPUE receiving
3b2	BT1		1	0.42	1	0.47	0.294	1	1	323	265	if factor > 1 then
3b2	BT2	0.111		0.047	0.19	0.052	0.033	0.201	1	36	33	factor = 1
3b2	GN1	1	1		1	1	0.699	1	1	769	731	
3b2	GT1	0.585	1	0.246		0.275	0.172	1	1	189	174	if CPUE=0 or LPUE = 0 then
3b2	LL1	1	1	0.893	1		0.625	1	1	687	685	CPUE=1 or LPUE=1
3b2	TR1	1	1	1	1	1		1	1	1100	917	
3b2	TR2	0.554	1	0.233	0.947	0.261	0.163		1	179	75	
3b2	TR3	0.009	0.083	0.004	0.016	0.004	0.003	0.017		3	3	

	donor gear	receiving gear								2011-2013		
		BT1	BT2	GN1	GT1	LL1	TR1	TR2	TR3	CPUE	LPUE	factor = CPUE donor/CPUE receiving
3b3	BT1		1	0.233	1	1	0.436	1	1	88	88	if factor > 1 then
3b3	BT2	0.216		0.05	0.26	0.704	0.094	0.229	1	19	18	factor = 1
3b3	GN1	1	1		1	1	1	1	1	378	378	
3b3	GT1	0.83	1	0.193		1	0.361	0.88	1	73	70	if CPUE=0 or LPUE = 0 then
3b3	LL1	0.307	1	0.071	0.37		0.134	0.325	1	27	27	CPUE=1 or LPUE=1
3b3	TR1	1	1	0.534	1	1		1	1	202	196	
3b3	TR2	0.943	1	0.22	1	1	0.411		1	83	75	
3b3	TR3	0.148	0.684	0.034	0.178	0.481	0.064	0.157		13	13	

STECF EWG-14-13 notes that with respect to partial F values on cod the overall long term F target of 0.4 stipulated by the cod management plan has been reached. However, because the stock is still below 150 000 tonnes a fishing mortality around 0.2 would be needed according to the plan.

Effort regime evaluation for the West of Scotland

The fishery West of Scotland is primarily an otter trawl fishery; beam trawls and static gears are hardly used. Effort within regulated gears is 58.8% less in 2013 compared to 2003. Regulated effort by trawl and seine gears (TR gears under Coun. Reg. (EC) 1342/2008) shows a long term decrease in effort and fell to its lowest level in the time series in 2011, but was stable between 2011 and 2013 for those nations reporting in both years.

Unregulated effort has been increasing since 2010, and has exceeded regulated effort since 2011 and the difference has increased again in 2013.

The most important category in terms of cod catch and landings is TR1 which over the period 2011-2013 on average, accounted for 94% and 87% of the total cod landings and catches by weight respectively from VIa. The second most important gear category is TR2, which can be seen to be a gear category with Nephrops as the dominant species in the landings. Based on relative contributions TR1 is the only gear group where the percentage cumulative cod catch in 2013 exceeded 20% and thus considered subject to annual effort adjustments (Coun. Reg. 1342/2008, art. 12(4)).

The table of international conversion factors is based on average CPUE (2011-2013). Discard data are scarce for many regulated gear groups but have been interpreted as representative for TR1 and TR2. Red cells indicate imprecise values due to lack of adequate discard information, green cells indicate representative discard information available.

West of Scotland

	donor gear	receiving gear							2011-2013		
		BT1	BT2	GN1	LL1	TR1	TR2	TR3	CPUE	LPUE	factor =
3d	BT1		1	0.25	1	0.003	0.023	1	1	1	if factor > 1 then
3d	BT2	1		0.25	1	0.003	0.023	1	1	1	factor = 1
3d	GN1	1	1		1	0.013	0.093	1	4	4	
3d	LL1	1	1	0.25		0.003	0.023	1	1	1	if CPUE=0 or LPUE = 0 then
3d	TR1	1	1	1	1		1	1	319	33	CPUE=1 or LPUE=1
3d	TR2	1	1	1	1	0.135		1	43	2	
3d	TR3	1	1	0.25	1	0.003	0.023		1	1	

For the most significant gear groups catching cod the correlation between partial F of cod and estimated fishing effort of regulated gears is statistically significant but negative. STECF is unable to determine the reason for this. Assessed F of cod in VIa remains high indicating the management measures in place in VIa have not been successful in achieving a reduction in fishing mortality.

With respect to Article 13.2 of the cod long term management plan

- Article 13.2.a has not been adopted by any member state
- Article 13.2b fisheries are estimated to account for less than 1% of the F total in 2013.
- Article 13.2c; in 2013 high discards from Scottish fisheries under 13.2c meant this category contributed nearly 50% of the F total in 2013.
- Article 13.2d; the partial F for this one category is between 0.57 and 0.6 (58% of F total). Discards have made the much greater contribution to fishing mortality in recent years.

Effort regime evaluation for the Irish Sea

For boats LOA>=10m there has been a 37% decline in Irish Sea nominal effort (kW*days at sea) since 2000, the majority of which occurred between 2003 and 2009. Since 2009 effort has remained relatively constant.

Irish Sea fisheries are predominantly demersal trawling and seining (TR group). Combined, TR effort mirrors the overall effort trend representing 55-60% of total Irish Sea effort. As part of regulated gears, the TR group accounted for over 70% of all effort from 2003, (over 80% since 2008). Within the TR group, the TR2 category (70-99mm mesh sizes) dominates. The majority of TR2 effort is now carried out under Article 13 of Coun. Reg. 1342/2008. A small amount of effort is reported under Article 11 of the regulation (CPart11) since 2010, 4-9%.

During 2006-2013, small boats' effort (LOA<10m) varied without a clear trend and constituted among 12-15% of the overall effort deployed. The majority of effort by the under 10m vessels is directed at pots and traps.

STECF notes Ireland resubmitted landings data from 2009-2013 in which cod landings recorded in ICES rectangles 33E2 and 33E3 of VIIa have been reassigned to ICES division VIIg due to uncertainty in catch origin. STECF also notes discard data is not consistently available for all years or all categories, resulting in distorted CPUE trends and uncertainty in gear ranking by catch. TR2 gear has been the most important for cod landings since 2011.

The table of international conversion factors is based on average CPUE (2011-2013). Discard data are scarce for many regulated gear groups but have been interpreted as representative for BT2, TR1 and TR2. Red cells indicate imprecise values due to lack of adequate discard information, green cells indicate representative discard information available.

Irish Sea

	donor gear	receiving gear							2011-2013		
		BT2	GN1	GT1	LL1	TR1	TR2	TR3	CPUE	LPUE	factor =
3c	BT2		0.269	0.338	1	0.284	1	1	89	60	if factor > 1 then
3c	GN1	1		1	1	1	1	1	331	331	factor = 1
3c	GT1	1	0.795		1	0.84	1	1	263	263	
3c	LL1	0.011	0.003	0.004		0.003	0.013	1	1	1	if CPUE=0 or LPUE = 0 then
3c	TR1	1	0.946	1	1		1	1	313	312	CPUE=1 or LPUE=1
3c	TR2	0.888	0.239	0.3	1	0.252		1	79	31	
3c	TR3	0.011	0.003	0.004	1	0.003	0.013		1	1	

STECF EWG 14-13 notes that the correlations between the summed partial Fs for landings of the regulated fisheries and their estimated fishing efforts are almost all non-significant.

Effort regime evaluation for the Celtic Sea

The review of trends in fisheries-specific effort and catches in the Celtic Sea is presented at the level of aggregation for the fisheries defined in the multi-annual cod plan, to allow managers to evaluate the data with the view to the potential extension of the cod plan to include the Celtic Sea. The Celtic Sea is defined into two management areas, i.e. ICES Sub-divisions 7bcefghjk and ICES Sub-divisions 7fg.

Analysis of the larger area 7bcefghjk is affected by the fact Spanish data are only included for 2012 and 2013 as no data for earlier periods have been submitted by the Spanish Authorities. Area 7fg is only affected to a minor extent.

In 7bcefghjk in terms of kW*days in 2013 France contributed 37%, Ireland 20%, England and Wales 15%, Spain 8%, the Netherlands 8%, Belgium 5%, Scotland 3%, Germany 2% and Denmark 1%.

The demersal fisheries are dominated by the gears TR1, TR2 and BT2 (24%, 18% and 10% of total Celtic Sea effort respectively). In recent years (since 2008) fishing effort has been

relatively stable, with the increase for most gears from 2012 due to the inclusion of Spanish data from 2012. The exception is TR1 effort which has been increasing since 2009.

For "unregulated" gears most of the effort is Dutch, French, Danish and Irish pelagic trawl fisheries (17% of total Celtic Sea effort), with a recent (since 2009) increase of Danish and Irish pelagic boats fishing for boarfish in the Celtic Sea.

The overall effort in 7fg decreased between 2003 and 2013, however, in the last two years the effort showed an increase to levels similar to 2004/2005. This increase is mainly due to an increase in effort by the demersal trawlers (TR). The effort in unregulated gears has been increasing steadily since 2006 until 2012, but in 2013 the unregulated gears effort showed a decrease, mainly due to the reduction of effort using pots.

STECF EWG 14-13 notes that the coverage of discard information for gears catching cod in the wider Celtic Sea is often low. In most cases the discard coverage index is either C (<33% of landings having discard information) or B (≥ 33% < 66%); only the relatively low cod catching gears BT2 and TR3 have category A (> 66%). Discard coverage from ICES Divisions VIIfg is better.

Landings and estimated discards of cod (where available) for the main gear in the Celtic Sea catching cod (TR1) have increased significantly since 2010, with 2012 landings double the landings in 2011. This reflects the particularly strong 2010 year class (the largest since 1987) entering the fishery and increased quota available. Landings of anglerfish, haddock and whiting have also increased since 2011 from this gear.

The contribution to Celtic sea cod landings from ICES Divisions VIIfg has been 60-70% in all years (except 2011) since 2003.

CPUE for cod has increased since 2011 in all main regulated gears, consistent with the strong 2010 year class of cod.

For the wider Celtic sea TR1 gear is the main gear landing anglerfish and cod; TR2 is the main gear catching *Nephrops*; BT2 is the main gear landing plaice and sole, while LL1 is the main gear landing hake. For ICES Divisions VIIfg TR1 is the main gear landing anglerfish, cod and hake; TR2 is the main gear landing *Nephrops*, while BT2 is the main gear landing plaice and sole.

Effort regime evaluation for southern hake and Norway lobster

STECF notes that the major data deficiency in its analyses is the lack of Spanish data in 2010 and 2011. Furthermore it is important to note that Spanish fishing vessels using regulated gears were not granted fishing effort derogations by the Spanish Authorities in 2012 and 2013 as provided for in Annex IIB to the annual TAC and Quota regulations.

Passive gears (3b, 3c and 3t) accounted for approximately 27% of all effort in 2012 and 2013. However, such results have a limited meaning regarding the relative fishing pressure exerted by these fleets, since the unit kW*day does not take into account the number of hooks deployed by longlines or the area covered and soak time of passive nets.

In 2012 and 2013, about 19% of the effort was assigned to non-regulated gears ("3t" and "none" gears), of which trammel nets ("3t") contribute 8% to the overall effort deployed. Most non-regulated effort is deployed by gears that do not target hake, *Nephrops* or anglerfish.

For small vessels (LOA<10m) Portuguese data do not provide gear or fishery specific information. France and Spain have provided data for 2012 and 2013 only.

STECF EWG-14-13 notes landings of hake reported to STECF and to the ICES assessment working group were about the same until 2009 but, in 2012 and 2013, landings reported to STECF are 46% and 66% of the values included in the ICES assessment. This is due to much lower landings reported in logbooks than in sales notes and high values for unallocated catches estimated by ICES in these years.

Regulated trawlers (gear group 3A) are most important for hake landings (49% for Spain and Portugal combined). The Spanish regulated trawlers discarded 91% of the total discarded volume of hake. Most important unregulated gear was trammel net (landing 6.6% of hake total weight).

Spanish and Portuguese regulated trawls landed 91% of total *Nephrops* landings in.

The discard coverage index for the main gears catching hake and Nephrops was classified as 'A' (representative discard information) for all years (hake) and most years (Nephrops).

Effort regime evaluation for Western Channel sole

STECF notes the majority of fishing effort deployed in the Western Channel is effort that is not being regulated by the Management plan for sole in Division VIIe. The two regulated gear groups, beam trawls (80mm and above; labelled '3a') and the static nets, (Gill and trammel nets up to 219mm mesh size; labelled '3b') account for only a relatively small proportion (about 15%) of the overall deployed effort.

Effort in the regulated beam trawl fleets (gear 3a) decreased gradually from 2% above the 2004-2006 baseline level in 2004 to 37% below that level in 2009 and thereafter has fluctuated between 30% and 37% below the 2004-2006 level. Effort in the regulated static gear (gear 3b) dropped substantially from 9% above the 2004-2006 level in 2004 to 77% below the 2004-2006 level in 2013. The effort from the vessels <10m fluctuates between 13% and 25% of the effort deployed by the vessels >10m.

STECF notes that only UK (England and Wales) have had vessels operating under an FDF scheme in the Western Channel (2012 and 2013). In 2013 9 vessels (7 in 2012) were operational in the FDF fisheries using the regulated beam trawl gear (3a) and one vessel (same as 2012) using the unregulated beam trawl gear (mesh size <80mm). The effort of the FDF fisheries to the total deployed effort by the regulated beamers (3a) and unregulated beamers amount to 24% and 5% respectively (17% and 1% in 2012).

STECF estimated the uptake of the permitted fishing effort in units of days at sea per vessel. The results should be interpreted with caution as the estimated ceilings are based on number of active vessels times the number of days allowed. STECF notes that the number of active vessels and their associated days at sea may be overestimated (multiple counted) if they

changed regulated gears. For the regulated beam trawl fleet (3a), the English series indicate an increasing uptake (47% - 95%) over time whereas the Belgian and the French regulated beam trawl fleets show a stable uptake at a low (around 10%) and high level (around 65%) respectively. The English regulated static gear (3b) show a slight increase in uptake (20%-45%) over time whereas the French regulated static gear shows a stable uptake of around 50%. However, uptake by both French fleets fell sharply in 2013 to approximately 30% and less than 40% respectively.

National amendments to the effort regulations were granted to the UK in 2012 and to the UK and France in 2013. This has the effect of increasing the maximum permitted fishing effort and lowering the percentage uptake of effort. In 2012 UK beam trawl fleet effort uptake fell from 95% to 75% as a result of the extra days allocated. In 2013 the effect was a change in uptake from 85% to 67%. The changes in French uptake were a reduction from 31% to 29% for the beam trawl fleet and a reduction from 38% to 35% for the passive gears fleet.

STECF EWG-14-13 notes that the aggregation for the fill-ins of the discard estimates for the unregulated gears in area 7e – which are responsible for substantial catches of the main species - sometimes do not reflect the real discard values for these unregulated gears. Member States provide discard estimates specific for gear and mesh-size. The aggregation only takes account of the gear and not the mesh-size. Therefore, sometimes discard rates for e.g. otter trawls with mesh-size 16-32 mm are used as a fill-ins for otter trawls with mesh size 80-89 mm. Regulated gears are linked to gear and mesh-size and therefore do represent true discard estimates when fill-ins are used.

In 2013 the unregulated gears account for 30% of overall sole landings of which the otter trawl fleet is responsible for 26% of these landings (the percentage of sole landings caught by unregulated gear has been ≥ 27% in all years). Unregulated gears accounted for 35% of plaice landings and 88% of cod landings in 2013, (otter trawl accounted for 33% and 83% respectively).

CPUE of sole and plaice from beam and static gears is increasing. CPUE and LPUE of cod by otter trawls and dredges increased sharply between 2010 and 2011 (with CPUE preceding LPUE) but have fallen again, possibly in connection with a strong year class.

Effort regime evaluation for the Western Waters and Deep Sea

In accordance with the Terms of reference, the Report presents trends in effort for defined fisheries (major gear groups) for 18 management areas within the convention areas of ICES and CECAF. STECF notes that discard information is often scarce.

Bottom trawl effort is concentrated in ICES Area IVa as well as the Continental shelf and slope to the west and southwest of Ireland and the UK.

Pelagic trawling was concentrated to the west of Ireland, and to the west and north of Scotland in the mid-2000s. This effort decreased greatly between 2007 and 2009, increased in 2010 before reducing again in 2011 and 2012. In 2013 effort increased in Areas IVa and IXa, but decreased in areas VIIIa and VIIIb.

Longline effort was concentrated on the shelf and slope between Shetland and Portugal but has been in decline in recent years.

In the mid 2000s gill net effort was concentrated in the Celtic sea and Porcupine Bank. Due to current restrictions in the use of deep water gill nets much of this effort is now concentrated in the Celtic sea, with some effort in the North sea, west of Scotland and the Bay of Biscay. In 2013 effort increased in areas VIIg and VIb but decreased in area IVb.

Beam trawling is concentrated in the Celtic sea and the western English Channel. While beam trawls are not a deep water gear some of the species caught are classified under Annex 2.

Effort regime evaluation for the Bay of Biscay

STECF EWG-14-13 notes that analyses and trends presented in the Report include data from Spain for 2012 and 2013. However, Spain did not provide data for previous years and this is important to take into account when interpreting the trends in fishing effort and landings in the tables and graphs presented in the Report.

The multiannual plan for the sustainable exploitation sole in the Bay of Biscay (R (EC) 388/2006) prescribes maximum annual fishing capacity for Member States' vessels that hold a special permit to fish. The Report provides fisheries-specific effort data for the Northern Bay of Biscay (ICES Div. VIIIa) and the southern Bay of Biscay (ICES Div. VIIIb) separately.

In 8a-BoB, 90% of 2013 effort is French, 7% Spain, 1% Belgium and 1% Netherlands. The main French fisheries are otter trawl, trammel and gill net and pelagic trawl. The main Spanish fisheries are longline, otter trawl and gill net. In 8b-BoB, 67% of effort in 2013 is French, 25% Spanish, 6% Belgium and 1% each from the Netherlands and England. The main French fisheries are otter trawl, trammel and gill net, longline and pelagic trawl. The main Spanish fisheries are otter trawl, pelagic seine and longline.

Due to data deficiencies, STECF was unable to fully evaluate the effort regime for sole in the Bay of Biscay. Spain provided data on fishing capacity in the unit of gross tonnage (GT) as requested in the data call, for the year 2012 only; France provided data in units of kW not GT.

Between 2012 and 2013 (the two years for which Spanish data is available) overall effort in units of kW days at sea fell by 10% in area VIIIa and increased by 1% in VIIIb.

Almost all effort of small boats is French. No Spanish, Belgium nor Netherlands data are available for small boats. Also the effort data available for small boats before 2010 seem to be incomplete. Small boats represent, over the last four years, almost 20% of the effort deployed by the large vessels in 8a and 10% in 8b.

The vast majority of sole catches are taken by French vessels, in area 8a the breakdown by fleet is trammel nets (65% in 2013, increasing on the period), otter trawls (31% in 2013, stable on the period), and gill nets (3% in 2013, decreasing on the period); in 8b trammel nets (64% in 2013, increasing on the period), otter trawls (17% in 2013, stable on the period) and gill nets (2% in 2013, decreasing on the period).

STECF EWG-14-13 notes that only approximately 40% of the total F derived from ICES assessments of sole in the Bay of Biscay is accounted for by the partial Fs derived for regulated gears from the data submitted to the EWG.

2 RECOMMENDATIONS OF THE WORKING GROUP

The EWG 14-13 has no specific recommendations.

3 INTRODUCTION

The STECF EWG 14-13 met during 29 September -03 October 2014 at the Casa don Guanella, Barza, Ispra, Italy. The meeting started by 9 am on 29 September and was adjourned by 13.00 on 03 October 2014. Working conditions provided were considered good.

3.1 Terms of Reference for EWG 14-06 and EWG 14-13

Background

The Commission consults the STECF 'Working Group on fishing effort regime evaluations' on a review of fisheries regulated through fishing effort management schemes adopted in application of

- ✓ the long term plan for cod stocks [R(EC) No 1342/2008],
- ✓ the recovery plan for Southern hake and Norway lobster stocks in the Cantabrian Sea and Western Iberian peninsula [R(EC) No 2166/2005],
- ✓ the multi-annual plan for the North Sea plaice and sole stocks [R(EC) No 676/2007],
- ✓ the multi-annual plan of Western Channel sole stock [R(EC) No 509/2007],
- ✓ the multi-annual plan for the cod stocks in the Baltic Sea [R(EC) No 1098/2007],
- ✓ the multi-annual plan for the sustainable exploitation of the stock of sole in the Bay of Biscay [R(EC) No 388/2006],
- ✓ R(EC) No 2347/2002 establishing specific access requirements and associated conditions applicable to fishing for deep sea stocks, and
- ✓ R(EC) No 1954/2003 on the management of the fishing effort relating to certain Community fishing areas and resources – so called Western Waters regime.

The overarching request is for: i) an assessment of fishing effort deployed by fisheries

and métiers which are currently affected by fishing effort management schemes as defined in Annex II of the TAC and Quota Regulations Regulation and including an assessment of fishing effort deployed by fisheries and métiers which would be affected by the extension of the cod recovery plan to the Celtic Sea and an assessment of effort in the Biscay sole fishery.; ii) an assessment of effort in the Baltic Sea and iii) an assessment of effort in Deep Sea and Western Waters regimes.

There will be two meetings of this STECF Working Group which will take place from 09 to 13 June 2014 and from 29 September to 03 October 2014.

Terms of Reference: see annex

Annex

1 – Assessment of fishing effort deployed by fisheries and métiers which are currently affected by fishing effort management schemes defined in the Baltic Sea cod management plan R(EC) No 1098/2007

Terms of Reference:

1. To provide historical series, as far back in time as possible, according to each of the following fishing areas:

Areas covered by the R(EC) No 1098/2007 (Baltic Sea)

(i) ICES division 22 to 24,

(ii) ICES divisions 25 to 28, by distinguishing areas 27 and 28.2

(iii) ICES divisions 29 to 32,

The data should also be broken down by

Member State;

Regulated gear types defined in **R(EC) No 1098/2007** (and by associated special conditions defined in Appendix 6 of the data call);

Unregulated gear types catching cod in fishing areas (i), (ii) and (iii);

for the following parameters:

a. Fishing effort, measured in kW.days and in GT.days

b. Fishing activity measured in days absent from port (according to definitions adopted in R(EC) No 1098/2007) and fishing capacity measured in kW, GT and in number of vessels concerned per year.

c. Catches (landings and discards provided separately) of cod in the Baltic Sea by weight and by numbers at age.

d. Catches (landings and discards provided separately) of non-cod in the Baltic Sea by species, by weight and by numbers at age.

e. Landings Per Unit of Effort (LPUE) and Catches Per Unit Effort (CPUE) of cod in the Baltic Sea (such data shall be issued by Member state, fishing area (i), (ii) and (iii) and fishing gear concerned in accordance with **Art. 3 of R(EC) No 2187/2005).**

2. To assess the fishing effort and catches (landings and discards separately) of cod in the Baltic Sea and associated species corresponding to vessels of length overall smaller than 8 metres in each fishery, by gear and by Member State.

3. To quantify the evolution of the calculated maximum effort in units of days at sea allocated annually to the cod fleet (regulated gear types) and the uptake of this effort.

4. To assess the catches (absolute values, landings and discards provided separately) and effort deployed in 2011 to 2013 corresponding to vessels participating in trials on fully documented fisheries FDF, by species, by gear and Member State, with the aim to determine the quality of the data submitted, the potentials and limitations of the fully documented fisheries and to what extent in particular catches (absolute values, landings and discards provided separately) differ from the figures estimated by the STECF for vessels not participating in these trials. STECF is requested to quantify and comment on the extent of changes in cod selectivity by FDF fisheries in comparison with the fisheries not participating in FDF schemes. If discard values are not provided or are zero, the assessment should be made on the basis of reported catch composition and its age structure.

5. To plot the spatial distribution of the fishing effort in units of hours fished by regulated gears deployed in the Baltic Sea, according to data reported in logbooks on the basis of ICES statistical rectangles and to provide interpretation of any changes or trends.

6. To comment on data quality and to highlight any unexpected evolutions in the estimated parameters which are not in line with the general trend, in particular as regards discard estimates of cod and pelagic species.

7. To assess and present in a tabular form the annual partial fishing mortalities of cod, for landings and discards separately, as generated by the effort regulated gears and the non-regulated gears by fishing areas and Member States, the latter non-regulated gears as a single lump group. The trends in gear group specific partial fishing mortalities shall then be compared with (correlated against) the trends in gear group specific fishing effort (units of kW days at sea) of the gears mentioned by fishing areas and Member States.

8. To identify, based on available data on fisheries specific landings and effort by statistical rectangle, ways to estimate standardised catchability indices for cod in the Baltic, considering the best practice to account for discards and to raise landings to catch figures. Detailed maps on estimated annual cod catchability indices shall then be presented for these areas.

2 – Assessment of fishing effort deployed by fisheries and métiers which are currently affected by fishing effort management schemes defined in the Kattegat (Annex IIA to Regulation (EC) No 39/2013 and 40/2013)

Terms of Reference:

1. To provide historical series, as far back in time as possible, according to each of the following fishing area:

Kattegat (ICES functional unit IIIaS)

The data should also be broken down by

Member State;

Regulated gear types defined in **Annex I** to **R(EC) No 1342/2008** (and by associated special conditions defined in the Appendix 6 of the data call);

Unregulated gear types catching cod;

for the following parameters:

a. Fishing effort, measured in kW.days, in GT.days, in number of vessels concerned.

b. Catches (landings and discards provided separately) of cod by weight and by numbers at age.

c. Catches (landings and discards provided separately) of non-cod by species, by weight and by numbers at age

d. Landings Per Unit of Effort (LPUE) and Catches Per Unit Effort (CPUE) of cod (such data shall be issued by Member state, fishing area and fishing effort group designed in **Annex I to R(EC) No 1342/2008**).

2. Based on the information compiled under point (1) above, to rank fishing effort groups as designed in **Annex I to R(EC) No 1342/2008**, on the basis of their contribution to catches including estimated discards and landings expressed in weight of cod.

3. To assess the fishing effort and catches (landings and discards) of cod and associated species corresponding to vessels of length overall smaller than 10 metres in each fishery, by gear (corresponding to regulated and unregulated gear as defined in the Annex II framework) and by Member State according to sampling plans implemented to estimate these parameters.

4 To assess the catches (absolute values, landings and discards provided separately) and effort deployed in 2011 to 2013 corresponding to vessels participating in trials on fully documented fisheries, by species, by gear and Member State, with the aim to determine the quality of the data submitted, the potentials and limitations of the fully documented fisheries and to what extent in particular catches (absolute values, landings and discards provided separately) differ from the figures estimated by the STECF for vessels not participating in these trials. STECF is requested to quantify and comment on the extent of changes in cod selectivity by FDF fisheries in comparison with the fisheries not participating in FDF schemes. If discard values are not provided or are zero, the assessment should be made on the basis of reported catch composition and its age structure.

5. To plot, the spatial distribution of the fishing effort in units of hours fished of regulated gears deployed in the Kattegat, according to data reported in logbooks on the basis of ICES statistical rectangles and to provide interpretation of any changes or trends.

6. To comment on data quality and to highlight any unexpected evolutions in the estimated parameters which are not in line with the general trend, in particular as regards the discard estimates of cod, Norway lobster and pelagic species.

7. To develop and calculate standard cpue's, lpue’s and standard correction factors to be used (within a MS) for transferring effort across gear groups with different cpue (Reg. (EC) No 1342/2008 Art 17, paragraph 5).

Commission Regulation (EU) No 237/2010 article 8(b) describes:

Correction factor = cpue donor gear /cpue receiving gear

The cpue's and lpue's have to be calculated per area per gear group (regulated gear) and presented in a table. Another table shall be provided for the standard correction factors between the regulated gear groups based on each cpue and lpue. Correction factors >=1 will all be set at value 1.

8. To assess and present in a tabular form the annual partial fishing mortalities of cod, for landings and discards separately, as generated by the effort regulated gears (Annex I to Council Reg. 1342/2008) and the non-regulated gears by Member States, the latter non-regulated gears as a single lump group. The trends in gear group specific partial fishing mortalities shall then be compared with (correlated against) the trends in gear group specific fishing effort (in units of kW days at sea) of the gears mentioned by Member States.

9. To quantitatively assess the annual trend in cod mortality that would have resulted from the fishing mortality adjustments in Article 7 and the trends in fishing effort that would have resulted from Article 12 of Council Reg. 1342/2008, for the period 2008 to 2013. Taking into account the results from point (8) STECF is requested to comment on whether and to what extent the Member States application of Article 13, Paragraph 2, points a, b, and c have supported the reduction of cod fishing mortality as defined in Articles 7 and 9 and whether the increased fishing effort deployed by Member States was commensurate with the fishing mortality level target for 2013. The group is requested to quantify for each Member State and effort group (Annex I to Council Reg. 1342/2008) the partial target fishing mortality of cod, and partial fishing mortality of cod generated in excess of the cod plan, and, if a significant correlation between cod fishing mortality and fishing effort exists, the corresponding amounts of target fishing effort and of the excessive fishing effort in units of kW.days at sea.

3 – Assessment of fishing effort deployed by fisheries and métiers which are currently affected by fishing effort management schemes defined in the Skagerrak, the North Sea and the Eastern Channel (Annex IIA to Regulation (EC) No 39/2013 and 40/2013)

Terms of Reference:

1. To provide historical series, as far back in time as possible, according to each of the following fishing areas:

(i) Skagerrak (ICES functional Unit IIIaN),

(ii) North Sea (EC waters of ICES sub-area IIa and ICES sub-area IV),

(iii) Eastern channel (ICES division VIId)

The data should also be broken down by

Member State;

Regulated gear types designed in **Annex I** to **R(EC) No 1342/2008** (and by associated special conditions defined in Appendix 6 of the data call);

Unregulated gear types catching cod, sole and plaice in fishing areas (i), (ii) and (iii);

for the following parameters:

a. Fishing effort, measured in kW.days, in GT.days, in number of vessels concerned and days at sea for the sole and plaice fishery.

b. Fishing capacity in kW.

c. Catches (landings and discards provided separately) of cod, sole and plaice by weight and by numbers at age.

d. Catches (landings and discards provided separately) of non-cod, non-sole and non-plaice by species, by weight and by numbers at age.

e. Landings Per Unit of Effort (LPUE) and Catches Per Unit Effort (CPUE) of cod, sole and plaice (such data shall be issued by Member state, fishing area and fishing effort group designed in **Annex I to R(EC) No 1342/2008**).

2. Based on the information compiled under point (1) above, to rank fishing effort groups as designed in **Annex I to R(EC) No 1342/2008**, on the basis of their contribution to catches including discards and landings expressed in weight of cod, sole and plaice.

3. To assess the fishing effort and catches (landings and discards) of cod, sole and plaice and associated species corresponding to vessels of length overall smaller than 10 metres in each fishery, by gear (corresponding to regulated and unregulated gear as defined in the Annex II framework) and by Member State.

4. To assess the catches (absolute values, landings and discards provided separately) and effort deployed in 2011 to 2013 corresponding to vessels participating in trials on fully documented fisheries, by species, by gear and Member State, with the aim to determine the quality of the data submitted, the potentials and limitations of the fully documented fisheries and to what extent in particular catches (absolute values, landings and discards provided separately) differ from the figures estimated by the STECF for vessels not participating in these trials. STECF is requested to quantify and comment on the extent of changes in cod selectivity by FDF fisheries in comparison with the fisheries not participating in FDF schemes. If discard values are not provided or are zero, the assessment should be made on the basis of reported catch composition and its age structure.

5. To plot the spatial distribution of the fishing effort in units of hours fished of regulated gears deployed in the Skagerrak, the North Sea and the Eastern Channel, according to data reported in logbooks on the basis of ICES statistical rectangles and to provide interpretation of any changes or trends.

6. To comment on data quality and highlight any unexpected evolutions in the estimated parameters which are not in line with the general trend, in particular as regards the discard estimates of cod, Norway lobster and pelagic species.

7. To develop and calculate standard cpue's, lpue's and standard correction factors to be used (within a MS) for transferring effort across gear groups with different cpue (Reg. (EC) No 1342/2008 Art 17, paragraph 5).

Commission Regulation (EU) No 237/2010 article 8(b) describes:

Correction factor = cpue donor gear /cpue receiving gear

The cpue's and lpue's have to be calculated per area per gear group (regulated gear) and presented in a table. Another table shall be provided for the standard correction factors between regulated gears groups based on each cpue and lpue. Correction factors >=1 will all be set at value 1.

8. To assess and present in a tabular form the annual partial fishing mortalities of cod, haddock, saithe (Skagerrak and North Sea only), whiting, plaice (North Sea only) and sole (North Sea only), for landings and discards separately, as generated by the effort regulated gears (Annex I to Council Reg. 1342/2008) and the non-regulated gears by Member States, the latter non-regulated gears as a single lump group. The trends in gear group specific partial fishing mortalities shall then be compared with (correlated against) the trends in gear group specific fishing effort (in units of kW days at sea) of the gears mentioned by Member States.

9. To quantitatively assess the annual trend in cod mortality that would have resulted from the fishing mortality adjustments in Article 8 and the trends in fishing effort that would have resulted from Article 12 of Council Reg. 1342/2008, for the period 2008 to 2013.. STECF is requested to comment on whether and to what extent the Member States application of Article 13, Paragraph 2, points a, b, and c have supported the reduction of cod fishing mortality as defined in Articles 8 and 9 and whether the increased fishing effort deployed by Member States was commensurate with the fishing mortality level target for 2013. The group is requested to quantify for each Member State and effort group (Annex I to Council Reg. 1342/2008) the partial target fishing mortality of cod, and partial fishing mortality of cod generated in excess of the cod plan, and, if a significant correlation between cod fishing mortality and fishing effort exists, the corresponding amounts of target fishing effort and of the excessive fishing effort in units of kW.days at sea

10. To identify, based on available data on fisheries specific landings and effort by statistical rectangle, ways to estimate standardised catchability indices for cod, plaice and sole in areas Skagerrak, North Sea and Eastern Channel and 2EU, considering the best practice to account for discards and to raise landings to catch figures. Detailed maps on estimated annual catchability indices by species shall then be presented for these areas.

4 – Assessment of fishing effort deployed by fisheries and métiers which are currently affected by fishing effort management schemes defined in the West of Scotland (Annex II A to Regulation (EC) No 39/2013 and 40/2013)

Terms of Reference:

1. To provide historical series, as far back in time as possible, according to the following fishing area:

West of Scotland (ICES division VIa and EC waters of Vb)

The data should also be broken down by

Member State;

Regulated gear types designed in **Annex I** to **R(EC) No 1342/2008** (and by associated special conditions defined in Appendix 6 to the data call as far as relevant);

Unregulated gear types catching cod;

for the following parameters:

a. Fishing effort, measured in kW.days, in GT.days and in number of vessels concerned

b. Catches (landings and discards provided separately) of cod by weight and by numbers at age.

c. Catches (landings and discards provided separately) of non-cod by species, by weight and by numbers at age.

d. Landings Per Unit of Effort (LPUE) and Catches Per Unit Effort (CPUE) of cod (such data shall be issued by Member state, fishing area and fishing effort group designed in **Annex I to R(EC) No 1342/2008**).

2. Based on the information compiled under point (1) above, to rank fishing effort groups as designed in **Annex I to R(EC) No 1342/2008**, on the basis of their contribution to catches including discards and landings expressed in weight of cod.

3. To assess the fishing effort and catches (landings and discards) of cod and associated species corresponding to vessels of length overall smaller than 10 metres in each fishery, by gear (corresponding to regulated and unregulated gear as defined in the Annex II framework) and by Member State.

4. To plot, the spatial distribution of the fishing effort in units of hours fished of regulated gears deployed in the West of Scotland, according to data reported in logbooks on the basis of ICES statistical rectangles and to provide interpretation of any changes or trends.

5. To comment on data quality and to highlight any unexpected evolutions in the estimated parameters which are not in line with the general trend, in particular as regards discard estimates of cod, Norway lobster and pelagic species.

6. To develop and calculate standard cpue's, lpue’s and standard correction factors to be used (within a MS) for transferring effort across gear groups with different cpue (Reg. (EC) No 1342/2008 Art 17, paragraph 5).

Commission Regulation (EU) No 237/2010 article 8(b) describes:

Correction factor = cpue donor gear /cpue receiving gear

The cpue's and lpue’s have to be calculated per area per gear group (regulated gear) and presented in a table. Another table shall be provided for the standard correction factors between regulated gear groups based on each cpue and lpue. Correction factors >=1 will all be set at value 1.

7. To assess and present in a tabular form the annual partial fishing mortalities of cod, haddock, saithe (VIa only), for landings and discards separately, as generated by the effort regulated gears (Annex I to Council Reg. 1342/2008) and the non-regulated gears by Member States, the latter non-regulated gears as a single lump group. The trends in gear group specific partial fishing mortalities shall then be compared with (correlated against) the trends in gear group specific fishing effort (in units of kW days at sea) of the gears mentioned by Member States.

8.To quantitatively assess the annual trend in cod mortality that would have resulted from the fishing mortality adjustments in Article 7 and the trends in fishing effort that would have resulted from Article 12 of Council Reg. 1342/2008, for the period 2008 to 2013. STECF is requested to comment on whether and to what extent the Member States application of Article 13, Paragraph 2, points a, b, c and d have supported the reduction of cod fishing mortality as defined in Articles 7 and 9 and whether the increased fishing effort deployed by Member States was commensurate with the fishing mortality target in 2013. The group is requested to quantify for each Member State and effort group (Annex I to Council Reg. 1342/2008) the partial target fishing mortality of cod, and partial fishing mortality of cod generated in excess of the cod plan, and, if a significant correlation between cod fishing mortality and fishing effort exists, the corresponding amounts of target fishing effort and of the excessive fishing effort in units of kW.days at sea.

9. To identify, based on available data on fisheries specific landings and effort by statistical rectangle, ways to estimate standardised catchability indices for cod West of Scotland, considering the best practice to account for discards and to raise landings to catch figures. Detailed maps on estimated annual cod catchability indices shall then be presented for this area.

5 – Assessment of fishing effort deployed by fisheries and métiers which are currently affected by fishing effort management schemes defined in the Irish Sea (Annex IIA to Regulation (EC) No 39/2013 and 40/2013)

Terms of Reference:

1. To provide historical series, as far back in time as possible, according to the following fishing area:

Irish Sea (ICES division VIIa)

The data should also be broken down by

Member State;

Regulated gear types designed in **Annex I** to **R(EC) No 1342/2008** (and by associated special conditions defined in Appendix 6 to the data call as far as relevant);

Unregulated gear types catching cod;

for the following parameters:

a. Fishing effort, measured in kW.days, in GT.days and in number of vessels concerned.

b. Catches (landings and discards provided separately) of cod by weight and by numbers at age.

c. Catches (landings and discards provided separately) of non-cod by species, by weight and by numbers at age.

d. Landings Per Unit of Effort (LPUE) and Catches Per Unit Effort (CPUE) of cod (such data shall be issued by Member State, fishing area and fishing effort group designed in **Annex I to R(EC) No 1342/2008**).

2. Based on the information compiled under point (1) above, to rank fishing effort groups as designed in **Annex I to R(EC) No 1342/2008**, on the basis of their contribution to catches including discards and landings expressed in weight of cod.

3. To assess the fishing effort and catches (landings and discards) of cod and associated species corresponding to vessels of length overall smaller than 10 metres in each fishery, by gear (corresponding to regulated and unregulated gear as defined in the Annex II framework) and by Member State.

4. To plot, the spatial distribution of the fishing effort in units of hours fished of regulated gears deployed in the Irish Sea, according to data reported in logbooks on the basis of ICES statistical rectangles and to provide interpretation of any changes or trends.

5. To comment on data quality and to highlight any unexpected evolutions in the estimated parameters which are not in line with the general trend, in particular as regards the discard estimates of cod, Norway lobster and pelagic species.

6. To develop and calculate standard cpue's, lpue's and standard correction factors to be used (within a MS) for transferring effort across gear groups with different cpue (Reg. (EC) No 1342/2008 Art 17, paragraph 5).

Commission Regulation (EU) No 237/2010 article 8(b) describes:

Correction factor = cpue donor gear /cpue receiving gear

The cpue's and lpue's have to be calculated per area per gear group (regulated gear) and presented in a table. Another table shall be provided for the standard correction factors between regulated gear groups based on each cpue and lpue. Correction factors >=1 will all be set at value 1.

7. To assess and present in a tabular form the annual partial fishing mortalities of cod, for landings and discards separately, as generated by the effort regulated gears (Annex I to Council Reg. 1342/2008) and the non-regulated gears by Member States, the latter non-regulated gears as a single lump group. The trends in gear group specific partial fishing mortalities shall then be compared with (correlated against) the trends in gear group specific fishing effort (in units of kW days at sea) of the gears mentioned by Member States.

8.To quantitatively assess the annual trend in cod mortality that would have resulted from the fishing mortality adjustments in Article 7 and the trends in fishing effort that would have resulted from Article 12 of Council Reg. 1342/2008, for the period 2008 to 2013. STECF is requested to comment on the questions if and to which extent the Member States application of Articles 13, Paragraph 2, points a, b, and c have supported the reduction of cod fishing mortality as defined in Article 7 and 9 and whether the increased fishing effort deployed by Member States was commensurate with the fishing mortality target in 2013. The group is requested to quantify for each Member State and effort group (Annex I to Council Reg. 1342/2008) the partial target fishing mortality of cod, and partial fishing mortality of cod generated in excess of the cod plan, and, if a significant correlation between cod fishing mortality and fishing effort exists, the corresponding amounts of target fishing effort and of the excessive fishing effort in units of kW.days at sea.

6 – Assessment of fishing effort deployed by fisheries and métiers which will be affected by the extension of the cod recovery plan to the Celtic Sea

Terms of Reference:

1. To provide historical series, as far back in time as possible, according to each of the following fishing areas:

(i) Celtic Sea (total of ICES divisions VIIb, VIIc, VIIe, VIIf, VIIg, VIIh, VIIj and VIIk) and

(ii) combined area Bristol Channel/South-East Ireland (total of the subset of ICES divisions VIIf and VIIg)

The data should also be broken down by:

Member State;

Regulated gear types designed in **Annex I** to **R(EC) No 1342/2008**;

Unregulated gear types catching cod;

for the following parameters:

a. Fishing effort, measured in kW.days, in GT.days and in number of vessels concerned.

b. Catches (landings and discards provided separately) of cod by weight and by numbers at age.

c. Catches (landings and discards provided separately) of non-cod by species, by weight and by numbers at age.

d. Landings Per Unit of Effort (LPUE) and Catches Per Unit Effort (CPUE) of cod (such data shall be issued by Member state and fishing effort groups as designed in **Annex I to R(EC) No 1342/2008**).

2. When providing and explaining data in accordance with point (1), the following **specific question** should be answered as well:

For VIIf+VIIg only, identify the **main species** (volume and percentage) caught per gear category, and related trends in recent years. Specify when this calculation has taken account of discards as well.

3. To assess the fishing effort and catches (landings and discards) of cod and associated species corresponding to vessels of length overall smaller than 10 metres in each fishery, by gear (corresponding to regulated and unregulated gear as defined in the Annex II framework) and by Member State according to sampling plans implemented to estimate these parameters.

4. To comment on data quality and to highlight any unexpected evolutions in the estimated parameters which are not in line with the general trend, in particular as regards the discard estimates of cod, Norway lobster and pelagic species.

5. To assess and present in a tabular form the annual partial fishing mortalities of cod, for landings and discards separately, as generated by the gears defined in Annex I to Council Reg. 1342/2008) and the other gears by Member States, the latter other gear groups as a single lump group. The trends in gear group specific partial fishing mortalities shall then be compared with (correlated against) the trends in gear group specific fishing effort (in units of kW days at sea) of the gears mentioned by Member States.

7 – Assessment of fishing effort deployed by vessels under the Southern hake and Norway lobster plan (Council Regulation (EC) No 2166/2005) operating in the Atlantic waters of the Iberian Peninsula as specified in Annex IIB of Council Regulation (EC) No 39/2013 and 40/2013

Terms of Reference:

1. The STECF is requested to compile, validate, analyse and assess the following historical data on fishing effort and catches in relation to vessels under the Southern hake and Norway lobster plan (Regulation (EC) 2166/2005):

Details by Member State on both effort (2000-2013) deployed and catches (2003-2013) made by all fishing vessels, included those with less than 10 meters, in each fishery, broken down by age, gear type, and mesh size

The data should be broken down and assessed by:

Member State;

Regulated gear types, area as laid down **in Annex IIB of Council Regulation (EC) No 39/2013 and 40/2013** and associated special conditions as laid down in Appendix 6 to the data call; unregulated gear types catching hake and Norway lobster;

for the following parameters:

a. fishing effort measured in kW.days, in GT.days and in number of vessels concerned;

b. catches (landings and discards provided separately) of hake and Norway lobster by weight and by numbers at age;

c. catches (landings and discards provided separately) of species other than hake and Norway lobster in areas covered by Annex IIB mentioned above (particular attention should be paid to Anglerfish catches), by species, by weight and by numbers at age;

d. Landings Per Unit of Effort (LPUE) and Catches Per Unit Effort (CPUE) of hake, Norway lobster and Anglerfish in areas covered by Annex IIB (such data shall be issued by Member state, fishing gear and special conditions listed in **Annex IIB of Council Regulation (EC) No 39/2013 and 40/2013**);

In assessing the data described above, particular attention should be paid to:

the quality of estimates of total catches and discards;

both the fishing effort and catches including landings and discards of hake, Norway lobster, anglerfish, and associated species including pelagics in relation to vessels of overall length smaller than 10 metres in each fishery, by gear (regulated and unregulated gears) and by Member State. The representativeness of data originated from sampling schemes should also be assessed.

to the description of the spatial distribution of the fishing effort of regulated gears deployed in the Atlantic waters of the Iberian Peninsula according to data reported in logbooks on the basis of ICES statistical rectangles with the aim to determine to what extent fishing effort has moved from long distance to coastal areas since the implementation of the fishing effort regime.

An excel table listing the kW.days from 2000 to 2013 broken down per gear type, special condition and Member State should be made available.

To comment on data quality and to highlight any unexpected evolutions in the estimated parameterss which are not in line with the general trend, in particular as regards discard estimates of hake, Norway lobster, anglerfish and pelagic species.

2. In the context of the revision of the current Southern hake and Norway lobster recovery plan (Council Regulation (EC) No 2166/2005) and on the basis of the data provided, the STECF is requested to assess the fishing effort regime, in particular commenting on the quality and completeness of the data supplied to assess the impact of future effort management measures proposed by the Commission.

3. To compare days allocated to the vessels carrying regulated gears (allowed activity) and days used by those vessels.

4. To assess the correlation between fishing mortality rates and the effort in units of kW days at sea deployed by Member States.

If a good correlation between fishing mortality rates and fishing effort is found, the WG is asked to explain or describe it. In case the correlation between the nominal fishing effort and the fishing mortality rates is weak, the WG is asked to describe whether this is due to a wrong descriptor (i.e. wrong descriptor for fishing capacity) or to other factors.

5. To identify, based on available data on fisheries specific landings and effort by statistical rectangle, ways to estimate standardised catchability indices for Nephrops, hake and monk in ICES Div. 8c and 9a, considering the best practice to account for discards and to raise landings to catch figures. Detailed maps on estimated annual catchability indices by species shall then be presented for these areas.

8 – Assessment of fishing effort deployed by fisheries and métiers which are currently affected by fishing effort management schemes defined in the Western Channel

(Western Channel sole stocks ICES zone VIIe, Annex IIC to Regulation (EC) No39/2013)

Terms of Reference:

1. To provide historical series, as far back in time as possible, according to the following fishing area:

Western Channel (ICES division VIIe)

The data should also be broken down by

Member State;

Regulated gear types designed in **Annex IIC** to **R(EC) No 39/2013** (and by associated special conditions defined therein as far as relevant);

Unregulated gear types catching sole;

for the following parameters:

a. Fishing effort, measured in kW.days, in GT.days and in number of vessels concerned.

b. Catches (landings and discards provided separately) of sole by weight and by numbers at age.

c. Catches (landings and discards provided separately) of non-sole by species, by weight and by numbers at age.

d. Landings Per Unit of Effort (LPUE) and Catches Per Unit Effort (CPUE) of sole (such data shall be issued by Member state and fishing gear listed in **Annex IIC to R(EC) No 39/2013**).

2. To assess the fishing effort and catches (landings and discards) of sole and associated species corresponding to vessels of length overall smaller than 10 metres in each fishery, by gear (corresponding to regulated and unregulated gear as defined in the Annex II framework) and by Member State according to sampling plans implemented to estimate these parameters.

3. To assess the catches (absolute values, landings and discards provided separately) and effort deployed in 2011 to 2013 corresponding to vessels participating in trials on fully documented fisheries, by species, by gear and Member State, with the aim to determine the quality of the data submitted, the potentials and limitations of the fully documented fisheries and to what extent in particular catches (absolute values, landings and discards provided separately) differ from the figures estimated by the STECF for vessels not participating in these trials. STECF is requested to quantify and comment on the extent of changes in sole selectivity by FDF fisheries in comparison with the fisheries not participating in FDF schemes.

4. To plot the spatial distribution of the fishing effort of regulated gears deployed in the Western Channel, according to data reported in logbooks on the basis of ICES statistical rectangles and to provide interpretation of any changes or trends.

5. To quantify the annual days at sea allocated to the vessels carrying regulated gears (allowed activity) and the uptake of such effort allowances.

6. To comment on data quality and to highlight any unexpected evolutions in the estimated parameters which are not in line with the general trend, in particular as regards the discard estimates of sole, plaice, Norway lobster and pelagic species.

7. To assess and present in a tabular form the annual partial fishing mortalities of sole, for landings and discards separately, as generated by the effort regulated gears (Annex I to Council Reg. 1342/2008) and the non-regulated gears by Member States, the latter non-regulated gears as a single lump group. The trends in gear group specific partial fishing mortalities shall then be compared with (correlated against) the trends in gear group specific fishing effort (in units of kW days at sea) of the gears mentioned by Member States.

9 - Assessment of fishing effort and evaluation of management measures for the Deep Sea and Western Waters effort regime

Terms of Reference:

1. To provide historical series, as far back in time as possible, according to each of the following fishing areas (and subareas to the extent possible):

(i) ICES area I (EU waters; non EU waters), only linked to Deep Sea species (according to both criteria: Annex I and II of Reg 2347/2002 and COM(2012)0371)

(ii) ICES area II (EU waters; non EU waters), only linked to Deep Sea species (according to both criteria: Annex I and II of Reg 2347/2002 and COM(2012)0371)

(iii) ICES area III (EU waters; non EU waters), only linked to Deep Sea species (according to both criteria: Annex I and II of Reg 2347/2002 and COM(2012)0371)

(iv) ICES area IV (EU waters; non EU waters), only linked to Deep Sea species (according to both criteria: Annex I and II of Reg 2347/2002 and COM(2012)0371)

(v) ICES area V (EU waters; non EU waters)

(vi) ICES area VI (EU waters; non EU waters)

(vii) ICES area VII excluding VIId (EU waters; non EU waters)

(viii) ICES division VIId

(ix) the Biologically Sensitive Area as defined in Article 6 of Reg (EC) No 1954/2003

(x) ICES area VIII (EU waters; non EU waters)

(xi) ICES area IX (EU waters; non EU waters)

(xii) ICES area X (EU waters; non EU waters)

(xiii) ICES area XII (EU waters; non EU waters), only linked to Deep Sea species (according to both criteria: Annex I and II of Reg 2347/2002 and COM(2012)0371)

(xiv) ICES area XIV (EU waters; non EU waters), only linked to Deep Sea species (according to both criteria: Annex I and II of Reg 2347/2002 and COM(2012)0371)

(xv) CECAF area 34.1.1 (EU waters; non EU waters)

(xvi) CECAF area 34.1.2 (EU waters; non EU waters)

(xvii) CECAF area 34.1.3 (EU waters; non EU waters)

(xviii) CECAF area 34.2 (EU waters; non EU waters)

The data should also be broken down by

Member State;

The following gear types:

– Regulated gear types

- Beam trawls
- Bottom trawls & demersal seines
- dredges
- drifting longlines or set longlines (bottom)
- driftnets or set gillnets
- trammel nets
- pots & traps

– Unregulated gear types:
  - Pelagic trawls and pelagic seines;
  - longlines (surface)

for the following parameters:

a. Fishing effort, measured in kW.days, in GT.days and in number of vessels concerned

b. Catches (landings and discards provided separately) by weight of:

– 5 most important (in weight landed) demersal species excluding scallops, edible crab, spider crab,
– Scallops,
– Spider crab and edible crab,

- 5 most important (in weight landed) Deep-sea species (according to Annex I and II of Reg 2347/2002 and COM(2012)0371), only related to fisheries which have been identified with special condition DEEP,
- 4 most important (in weight landed) pelagic species, plus always tuna-like species (SKJ,ALB,YFT,BET,SWO).

c. Landings Per Unit of Effort (LPUE) and Catches Per Unit Effort (CPUE) by Member State and gear, given by total catches of the gear divided by kW-days and GT-days.

2. When providing and explaining data in accordance with point (1), the following **specific question** should be answered as well:

With respect to the foregoing estimation, STECF is requested to assess the extent to which linking VMS positions to logbook data would improve the accuracy and precision of the estimation.

3. To identify recent effort trends in pelagic fisheries where possible, in particular in areas X, XI and CECAF areas.

4. To comment on data quality and to highlight any unexpected evolutions in the estimated parameters which are not in line with the general trend, in particular as regards the discard estimates of pelagic species.

10 – Assessment of fishing effort deployed by fisheries and métiers which are currently affected by the multiannual plan for the sustainable exploitation of the stock of common sole in the Bay of Biscay (R(EC) No 388/2006)

Terms of Reference:

1. To provide historical series, as far back in time as possible, according to each of the following fishing areas:

ICES division VIIIa, and

ICES division VIIIb

The data should also be broken down by:

Member State;

Type of gear (as laid down in **Annex IV of Commission Decision 2008/949/CE**) for regulated vessels (as laid down in **Article 5 of R(EC) No 388/2006)**

Type of gear (as laid down in **Annex IV of Commission Decision 2008/949/CE**) for unregulated vessels (as laid down in **Article 5 of R(EC) No 388/2006)**

for the following parameters:

a. Fishing effort, measured in kW.days, in GT.days and in number of vessels concerned.

b. Fishing capacity in GT.

c. Catches (landings and discards provided separately) of common sole (*Solea solea*) by weight and by numbers at age.

d. Catches (landings and discards provided separately) of species other than common sole, by weight and by numbers at age.

2. To assess the fishing effort and catches (landings and discards separately) of common sole and associated species corresponding to vessels of length overall smaller than 10 metres in each fishery, by gear and by Member State.

3. To describe the spatial distribution of the fishing effort in units of hours fished deployed in the Bay of Biscay, according to data reported in logbooks on the basis of ICES statistical rectangles, with the aim to determine the spatial distribution of fishing effort and its development during the time period.

4. To comment on data quality and to highlight any unexpected evolutions in the estimated parameters which are not in line with the general trend, in particular as regards discard estimates of sole and pelagic species.

5. To assess and present in a tabular form the annual partial fishing mortalities of sole, for landings and discards separately, as generated by the major gear types and separately for vessels with and without the special fishing permit (>2 tons of sole/a). The trends in gear group specific partial fishing mortalities shall then be compared with (correlated against) the trends in gear group specific fishing effort (in units of kW days at sea) of the gears mentioned by Member States.

3.2 Participants

Section 7 of the present report lists the participants of the STECF EWG 14-06 and 14-13.

4 DATA USED

The following sections provide an overview on data definition, acquisition, and evaluation procedures agreed by the expert working group.

Also provided are experts' descriptions regarding the national data features/quality as submitted by the Member States in response to the DCF data call in 2014 for fishing effort regime evaluations.

The national sections provide specific information regarding the nations' methods applied to estimate the days at sea, and if the applied method is regarded as being consistent with the provisions of the DCF or the Control Regulation (Coun. Reg. No. 1224/2009). However, STECF EWG 14-13 is unable to evaluate these national statements.

Furthermore, the national data quality sections for the Baltic provide information regarding the consideration of drifting longlines (LLD) in the effort regulated gear category LONGLINE (LL) of the DCF data calls for fishing effort regime evaluations in 2014 and earlier.

4.1 Report Notations

4.1.1 Baltic Sea

To identify the categories assessed for effort and catch this working group adopts terminology that matches definitions made in the management plan for Baltic cod (R(EC) 1098/2007). This means that all trawls, Danish seines, gill nets, entangling nets or trammel nets with mesh size >=90mm and longlines were assumed to be regulated gears (Table 4.1.1.1). Remaining gear and mesh size combinations were taken to be unregulated gears (Table 4.1.1.2).

Sub-Areas were defined according to Council Regulation (EC) 1098/2007. This means that Subdivision 22-24 is declared as fishing area "A", Subdivision 25-28 as "B" and Subdivision 29-32 as "C".

Table. 4.1.1.1 Regulated gear types, mesh sizes and special conditions as defined in Reg. (EC) No. 1098/2007.

Gear	Mesh Size	SPECON
OTTER	>=90mm	none
OTTER	>=90mm	BACOMA
Danish Seine	>=90mm	none
Danish Seine	>=90mm	BACOMA
Pelagic Trawl	>=90mm	none
Pelagic Trawl	>=90mm	BACOMA
Pelagic Seine	>=90mm	none
Pelagic Seine	>=90mm	BACOMA
Gill net	>=90mm	none
Trammel net	>=90mm	none
BEAM	>=90mm	none
Longlines		

Table 4.1.1.2 Unregulated gear types, mesh sizes and special conditions as defined in Reg. (EC) No. 1098/2007.

Gear	Mesh Size	SPECON
OTTER	<90mm	none
Danish Seine	<90mm	none
Pelagic Trawl	<90mm	none
Pelagic Seine	<90mm	none
Gill net	<90mm	none
Trammel net	<90mm	none
Beam Trawl	<90mm	none
DREDGE	all	none
POTS	all	none

4.1.2 Cod Zones Multi-annual Plan

The compilation of effort data as described in this report represents a continuation of a process which was initiated in association with the establishment of recovery plans for various European cod and hake stocks.

In addition to other properties, major gear types are used to identify fisheries which are not effort regulated. The notation and categorisation of effort regulated fisheries used has reflected that defined in the relevant technical regulations. The most recent revision of the cod recovery plan and the associated effort regime are described in Regulation 1342/2008.

Under the revised 'cod plan' the following gear groupings are set out in Annex I of the Regulation together with areas in which they apply. Throughout the report reference is made to gears such as TR1, TR2 etc. Under the revised scheme Member States are allocated 'effort pots' in KW*days for each category which can then be managed nationally. EU allocated 'days at sea' per vessel is no longer applicable. The following summary of gear and area codes that apply in the current cod plan is taken from Annex 1 of Regulation 1342/2008.

STECF 14-13 notes that, in accordance with the ToR, the areas of the plan for North Sea cod were split into Skagerrak (3b1), North Sea and 2 EU (3b2) and Eastern Channel (3b3). The present report provides the requested fisheries parameters by these sub-areas 3b1, 3b2 and 3b3.

ANNEX I
Effort groups are defined by one of the gear groupings set out in point 1 and one of the geographical areas set out in point 2.

1. Gear groupings

(a) Bottom trawls and seines (OTB, OTT, PTB, SDN, SSC, SPR) of mesh:
TR1 equal to or larger than 100 mm,
TR2 equal to or larger than 70 mm and less than 100 mm,
TR3 equal to or larger than 16 mm and less than 32 mm;

(b) Beam trawls (TBB) of mesh:
BT1 equal to or larger than 120 mm
BT2 equal to or larger than 80 mm and less than 120 mm;

(c) Gill nets, entangling nets (GN);

(d) Trammel nets (GT);

(e) Longlines (LL).

2. Groupings of geographical areas:
For the purposes of this Annex, the following geographical groupings shall apply:
(a) Kattegat;
(b) (i) Skagerrak; (ii) that part of ICES zone IIIa not covered by the Skagerrak and the Kattegat;
ICES zone IV and EC waters of ICES zone IIa; (iii) ICES zone VIId;
(c) ICES zone VIIa;

(d) ICES zone VIa.

This categorisation is relatively simple when compared to that of the previous version of the cod recovery plan, and the number of 'special conditions' under which vessels have differing allocations of effort is relatively restricted. The current cod recovery plan makes allowance for vessels which can demonstrate a track record of having caught less than 1.5% cod to be excluded from the effort regime (Regulation 1342/2008, Article 11, para 2b). There is also scope for groups of vessels to be allocated additional effort if they participate in discard reduction or cod avoidance schemes leading to equivalent or greater reductions in cod mortality than the corresponding effort restriction (Regulation 1342/2008, Article 13, para 2c). These conditions are represented in the database as follows:

Condition	Code
Effort deployed by those boats granted the <1.5% derogation excluding them from the effort regime	CPart11
Effort deployed by vessels operating in Member State schemes under Article 13: highly selective gear with less than 1 % cod.	CPart13A
Effort deployed by vessels operating in Member State schemes under Article 13: cod avoiding fishing trips with less than 5% cod.	CPart13B
Effort deployed by vessels operating in Member State schemes under Article 13: cod avoidance or discard reduction plans.	CPart13C
Effort deployed by vessels operating in Member State schemes under Article 13: fisheries West of Scotland to the west of the cod line.	CPart13D

4.1.3 Southern hake and Nephrops

Notation devised for effort categories specified under Annex IIB of Regulation (EC) No. 39/2013 remains the same as in previous reports. Under Annex IIB the gear groups are defined under point 2 and special conditions under point 6.1. The group of gears includes bottom trawls, gill nets and bottom long lines combined. In 2007 (Annex IIB in R (EC) No. 41/07) there are separate groups for trawl (3a), for gill nets (3b) and for longline (3c). These gear groups were merged in the 2008 legislation. The working group considered maintaining the 3 separate categories is important in terms of maximising the clarity of information from results. Therefore, gear groups and codifications have been kept as in 2007. In order to provide additional insight into fisheries specific impact, the EWG 14-13 also defined trammel nets as a separate metier using the code "3t". Table 4.1.3.1 links notation with gear group and special conditions. So, for example, a vessel using a gill net of mesh size ≥ 60mm and conforming to the hake catch composition rules would belong to derogation "IIB72AB". Note the special condition code used in the data call and tables refers to Annex IIB article 7.2 (a) and (b). After revision of Annex IIB the special condition is now referred to in article 6.1.

Table. 4.1.3.1 Gear group and special conditions of Annex IIB, Reg. (EU) No. 39/2013 (and Reg. (EU) 43/2012)

Gear group (Regulation (EC) 41/2007)			Special condition [Reg. (EU) 43/2012 & 39/2013]				Effort Regime Derogation
Regulation point	Gear	Mesh size range (mm)	Regulation point	(Regulation(EC) 43/2012) Description	(Regulation(EC) 39/2013) Description	EWG code	
3.a	OTTER	≥ 32	6.1	Hake landings <5 tonnes in 2009 or 2010 AND *Nephrops* landings <2.5 tonnes in 2009 or 2010	Hake landings <5 tonnes in 2010 or 2011 AND *Nephrops* landings <2.5 tonnes in 2010 or 2011	IIB72AB	Yes
3.b	GILL	≥ 60					
3.c	LONGLINE	-					
3.a	OTTER	≥ 32		Other cases	Other cases	none	No
3.b	GILL	≥ 60					
3.c	LONGLINE	-					

OTTER = Trawl or Danish seine or "similar gears"
GILL = Gill net

LONGLINES = Bottom longlines

4.1.4 Western Channel sole

Gear groups, area and effort limits connected with the western Channel sole management plan are contained in Annex IIC of the annual fishing opportunities regulation. Notation in the effort reports relate to definitions under Annex IIC of Reg. (EC) No. 40/2008 where gear groups are defined under point 3 and special conditions under point 7. Table 4.1.4.1 links notation with gear group and special conditions. So, for example, a vessel using a static net of mesh size less than 220mm belongs to derogation "3.b". The format of Annex IIC has changed in more recent regulations but for reasons of continuity with previous reports the notation of the effort reports has been kept the same. Note that no special conditions are currently in operation under Annex IIC.

Table. 4.1.4.1 Gear group and special conditions of Annex IIC, Reg. (EU) No. 39/2013. Note that no special conditions are currently in operation under Annex IIC.

Derogation			Mesh size range		Special Condition
Gear group Point 3	Special condition Point 7	Gear	mesh size mm From	mesh size To mm	
3.a		BT	80	inf	none
3.b		GE & TR	0	219	none

BT = Beam Trawl
GE = Gill net or entangling net
TR = Trammel net

4.1.5 Celtic Sea

STECF EWG 14-13 defined the codes of gears as identical to the ones for the cod zones given in section 4.1.2.

4.1.6 Bay of Biscay

STECF EWG 14-13 defined the codes of major gear groups as identical to the 2014 DCF data call with an identification of the boats holding a special fishing permit as defined in R (EC) No 388/2006, encoded as SBcIIIart5.

4.1.7 Western Waters and Deep Sea

STECF EWG 14-13 defined the codes of major gear groups as in the 2014 DCF data call with an identification of the boats conducting deep sea trips, encoded as DEEP.

4.2 Data call

The DCF data call 2014 to support fishing effort regime evaluations was published on 21 March 2014 with a deadline of 14 May 2014. The data call is fully documented at the JRC DCF web page: https://datacollection.jrc.ec.europa.eu/home

The STECF EWG 14-13 notes that the 2014 data call is consistent with the data call issued in 2013 for the same purpose.

4.3 Data policy, formats and data availability

Originally, the catch and effort data base structures used by STECF-SGRST were developed by the ICES Study Group on the Development of Fishery-based Forecasts (ICES CM 2004/ACFM:11, 41 pp.) with some amendments required for the review of specific fishery regulations. Over time, there have been numerous changes to the original database and the way in which data are stored and accessed in order to reflect changes to some of the effort regimes and to accommodate data from deep-water and Fully Documented Fisheries.

Experts reported on national data policies for the national fleet specific landings, discards and effort data and generally supported the continued use of the data by STECF but with required permission for any use by other scientific or non-scientific groups. This implies that national experts need to be contacted for their consent before granting access to the data.

JRC requests to be informed about applications for data access and any notifications.

4.3.1 Data availability Table A Catch 2003-2013

Table 4.3.1.1 Overview of the catch data submission for the 2014 Fishing Effort Regimes data call. In bold the dates when catch data where submitted after the official submission deadline (14th of May).

Country	Data Submission	First Submission (Deadline 14-May)	Last Re-submission
BEL	DCF website	09 May	09 May
DEU	DCF website	14-May	14-May
DNK	DCF website	14-May	14-May
ESP	DCF website	**26-May**	**26-May**
EST	DCF website	14-May	14-May
FIN	DCF website	14-May	14-May
FRA	DCF website	**25-May**	**25-September**
GBR	DCF website	**06-June**	**12-September**
GBR SCO	DCF website	12-May	**26-September**
IRL	DCF website	12-May	**23-June**
LTU	DCF website	13-May	13-May
LVA	DCF website	10-May	10-May
NLD	DCF website	**25-May**	**06-June**
POL	DCF website	13-May	13-May
PTR	DCF website	14-May	**25-September**
SWE	DCF website	13-May	14-May

4.3.1.1 Belgium

A number of 2559 records were submitted for 2013. No update for previous year's data was needed. There were a few records with missing mesh size information for gear types such as trammels, dredges and gillnets. Moreover, many records regard species that are not listed in the official data call, like BLL, RJN, RJM, RJC and RJH. The only special condition reported for 2013 data was SBCIIIart5. This year, all officially recorded species by the Belgian authorities were provided. However, it should be noted that the sum of all provided landings do not match the total Belgian landings as there are a minority of species landed and recorded as e.g. "other demersal" or "other crustacean" which are not provided to the EGW 14-13.

Belgium provided fleet specific landings data for 2003-2013 derived from official logbook databases for all vessels ≥10 meters. The data covers all areas in which the Belgian fleets are active and conform to the requested aggregation, by quarter, area, gear and mesh sizes.

The species provided are: anglerfish, bib, brill, brown shrimp, cod, conger eel, cuttlefish, dab, dogfish, edible crab, flounder, great scallop, grey gurnard, haddock, hake, horse mackerel,

lemon sole, ling, mackerel, megrim, Nephrops, octopus, plaice, pollack, red gurnard, saithe, sea bass, skates and rays (by separate species), sole, spurdog, squid, striped mullet, tub gurnard, turbot, whelk, whitch flounder, whiting and wolffish. The age composition on landings for sole and plaice in ICES subdivisions IV, VIIa, VIId, VIIfg and sole in subdivision VIIIa and b have been provided by quarter for the Belgian beam trawlers. The total numbers of samples, as well as numbers at age by quarter have been apportioned in the same ratio as total quarterly beam trawl fleet landings to annual landings.

Discard data for 2004-2011 were provided from the Belgian Beam trawl fleet for the following species: anglerfish, brill, cod, dab, haddock, hake, lemon sole, plaice, saithe, sole, skates and rays, turbot and whiting. For 2012 and 2013 discard information was also provided for bib, ling, Striped mullet, pollack and whitch flounder. The areas covered are 4, 7a, 7d, 7e, 7f, 7g, 8a and 8b. Belgian discard data represent all ages and are disaggregation by age for cod in areas 4, 7a, 7e, 7f and 7g; for sole in areas 4, 7a, 7d, 7f, 7g, 8a and 8b; and for plaice in areas 4, 7a, 7d, 7f and 7g. The discards information for the other species mentioned above are without disaggregation by age. Information by area for all observer-trips during the year has been merged together, giving an annual percentage of discards estimate per species. The annual estimates of discard rate have been assumed to apply in each of the 4 quarters.

There is no information on misreporting. The landings in the database are based on combined information of logbook data and sale slips. The actual landed weight is split according the logbook information on hours fished in the respective rectangles.

As Belgium does not have trip-by-trip information on the true mesh size for its fleets for 2003-2006, Belgium (as well as other countries) agreed to assume certain mesh sizes for its beam trawler fleets. Beamers operating in the Bay of Biscay (VIIIa,b) were assumed to use a 70-79 mm mesh size as this is the minimum legal mesh size in that area for beamers. For the North Sea, the trips were split according to the rectangles reported in the logbooks, and mesh sizes were allocated in line with Council Regulation (EC) N° 2056/2001. This regulation stipulates that beam trawlers are prohibited to use less than 120 mm in ICES Division IV to the north of 56° 00’ N. Therefore all beam trawl information from this part of ICES Division IV was accounted against an assumed >120mm mesh size. The same regulation also stipulates that within the rectangle with coordinates along the east coast of the UK between 55° 00’ N and 56° 00’ N and the points 55° 00’ N – 05° 00’ E and 56° 00’ N – 05° 00’ E, beam trawlers can use 100 to 119 mm mesh size. Here also it was assumed that the mesh size used by the Belgian Beam trawl fleet was 100-119 mm. For the rest of ICES Division IV (the southern part) a mesh size of 80-89 mm was assumed for the beam trawlers. Apart from these assumed mesh size which are based on rectangle information from logbooks, it was also assumed that the shrimp fishery used a mesh size of 16-31 mm. The mesh size of the beam trawl fleets in the other area’s was assumed to be 80-89 mm. Since 2007 mesh sizes used by beam trawls operating in different areas have been based on the true mesh sizes used on each trip.

The Belgian gear categories are: beam, dredge, gill, longline, otter, and trammel. For trammel nets, no assumptions of mesh sizes were made. The only specific condition reported for 2013 data was SBCIIIart5 for all Belgian vessels operating in areas 8a and 8b.

Belgium did not provide any information for vessels under 10m.

4.3.1.2 Denmark

Danish data were submitted on time, and with the requested information for all tables. Last year, Denmark had proceeded to a major revision and had resubmitted the whole time series 2003-2012. Therefore, no revision of older data was made this year, and only 2013 data were provided.

The extraction procedures are now fully compatible with the RDB FishFrame database, in order to get a unique raising procedure for all Danish catch information (discards and age-based information), thus improving the consistency of data reported to the various forums within e.g. ICES and STECF. As such, data raised in FishFrame are also used for the STECF Effort data call. Where the categories in the FishFrame format and the STECF Effort format are not the same, the data are scaled according to the landings.

10249 records were submitted for Table A for 2013. All records passed the Data Submission filters, but, as every year, a small proportion of the reported Danish fisheries activities have missing information. 1.8% of landings have no gear information. The Danish 2013 submission still does not cover the special conditions BACOMA or T90 in the Baltic, as these are not compulsory to report in logbooks according to control regulations 1224/2009 and 404/2011.

4.3.1.3 Estonia

A number of 2718 records were submitted for 2013. No updates for previous year's data. There were a number of records with inconsistent mesh size ranges.

STECF-EWG 14-13 notes that the MS did not provide discard information. The reason for that is the discarding ban in the Estonian fishery in the Baltic Sea according to MS legislation.

4.3.1.4 Finland

A total of 3629 records were uploaded by the Member State.

Finish data were submitted in an inconsistent format due to data confidentiality (EC 199/2008, Article 20 (4)). To protect anonymity of individual fishermen and vessels, part of the data was aggregated to a higher level than asked in the data call. Data was followed by a letter, which explained the reasons for inconsistency and the aggregation method used.

4.3.1.5 France

A number of 24069 records were submitted and fitted in the system for 2013. No updates for previous years' data. There were a few records with missing area information for vessels less than 10 meters (~200 days at sea) which have not been taken into account as well as a few records for area 3a (less than 2 days at sea) but with no distinction between 3as and 3an. No mesh size was reported for pots records. Only data regarding species and gears that are requested in the official data call have been submitted and as a consequence records regarding species or gears not requested are missing.

The specific conditions Cpart11, Cpart13B, IIB72ab, DEEP and SBcIIIart5 have been provided for eligible vessels and fisheries for 2013 as last year for 2012. The data were not updated for 2009-2011 on this specific issue.

As in previous years, records for specific condition DEEP and records for specific area BSA are double counted.

France provided landings data for 2003-2013 derived from official logbook databases for all registered vessels 10m and over and from monthly declarative forms (contain declarative monthly data on fishing effort and catches per species by dates, locations and gears) for all registered vessels under 10m (logbooks are not mandatory for these vessels but they are covered by these monthly declarative forms). The data cover all areas requested in the data call and conform to the requested aggregation, by quarter, area, gear and mesh sizes.

Some biological data (age data) have been provided for 2013 for cod. For some other species, only distribution by length is available and it is not possible to provide distribution by age. Discards estimates have been provided for 2010-2013 for all strata where sufficient samples were available.

Biological data are calculated based on samples collected during concurrent sampling by métier both at sea and at auction. The information collected at auction is complementary to the data collected at sea for the retained part of the catches. Discards estimates have been calculated based on data collected by métier on board of fishing vessels (sampling at sea program).

4.3.1.6 Germany

A number of 2712 records were submitted for 2013. There were a few records with missing gear information as well as some records for pots, dem_seines, gills, otters without mesh size reported.

Fleet specific landings and estimated discard data were provided as outlined in the data call for 2003-2013 derived from official logbook data covering all vessels ≥10m. For the Baltic information for vessels >=8m is provided. Information on landings are provided for vessels <10m (North Sea) and <8m (Baltic) based on landings declarations from these vessels in a more aggregated format as logbooks are not mandatory for these vessels. All data provided do not include unallocated landings. The estimation of discards is based on about 20-30 observer trips per year. It is impossible to cover all quarter-gear-mesh size combinations in the data call. Therefore, final discard estimates in this report are to some extent based on observations from other countries. The data consider the aggregation by quarter, area, gear, mesh size, and existing derogations including special conditions of 8.1.a, 8.1.c, 8.1.d, 8.1.e and 8.1.f for the years 2003-2008 as requested. For 2009 onwards the special conditions from the new cod management plan are used. Some records did not pass the Data Submission filters when some information on e.g. gear, mesh size was missing, but these records represent only a very small proportion of the reported German fisheries activities. They are related to fishing operations with gears for which no code is available in the STECF data call.

4.3.1.7 Ireland

A number of records (38914) were submitted for 2009 - 2013 adding to unchanged 2003-2008 data submitted in 2012. There were some records with missing gear information as well as some records for pots, gills, otters without any mesh size reported.

In 2014 Ireland provided fleet specific landings data for 2009-2013 derived from declared landings within the national logbook database (IFIS) for all vessels ≥10 meters in length. Operational landings information was used to provide landings data within the Biologically Sensitive Area (BSA). All species requested by the group and landed by Irish vessels have been provided in the requested aggregation. The following special condition information was supplied: none, CPart13a, CPart13b, CPart13c, CPart13d, CPart11 and DEEP. SPECON DEEP is a duplication of effort within the relevant areas. This submission adds to unchanged 2003-2008 data submitted in 2012.

Under 10 meter vessels are not required to complete logbooks, therefore landings data from these vessels are obtained from monthly reports. These reports provide species live weight by ICES area on a monthly basis. No vessel, gear, or effort information is recorded. There is some doubt as to the accuracy of these monthly reports.

It was not possible to accurately aggregate data to the level of EU, coast, and RFMO. Data was assigned according to the following: Where an EU category existed within an area, all data from that area was categorised as EU, with the exception of ICES division X assumed to be RFMO. Those ICES divisions without an EU category where assumed as 1 coast and 2 coast.

Area misreporting has been accounted for between VIIg and VIIa for cod, haddock and whiting from 2009 onwards where the fishery straddles the ICES boundary of these two areas. Nephrops misreporting relating to the porcupine bank fishing ground has also been accounted for across the period 2011-2013.

Minor revisions were made to the 2009-2012 data due to continuing revisions and improvements to the national database.

Irish biological landings information is not recorded with mesh size information; this was re-constructed by linking to the logbooks database, where possible. The age composition of the landings was estimated for each quarter of 2009-2013 by gear, area and species (any further disaggregation would violate the sampling design). The age compositions were then assigned to each of the remaining strata (vessel_length; mesh, fishery; specon) based on the reported landings in each of these strata.

Similarly, discard data were raised up to the fleet level for each year, quarter, gear, area, species and the presence/absence of a selectivity device. Fishing effort (hours fished) was used for all species as the auxiliary variable. The discard rate (kg/h) and age composition (where applicable) were then applied across the remaining strata (vessel_length; mesh, fishery; specon) based on the effort (fishing hours) in each of these strata. Discards that were observed to be zero are included.

Warnings:

1) Differences between ICES stock assessment working group data and STECF data will arise because different levels of stratification were used; we applied the most disaggregated level of stratification possible for the STECF data call, while working group estimates are generally produced by merging a number of strata. Additionally, the discard estimates for the working groups are produced using different auxiliary variables for certain stocks. Because of the large number of species involved it was decided to use a single auxiliary variable for all species.

2) Because the data are estimated by year, quarter, gear and area, it is meaningless to compare age compositions between vessel length categories, mesh size categories and special conditions; the age composition will be identical for all of these strata)

3) Most strata (year, quarter, vessel length, gear, mesh etc.) have not been sampled (84% of the landings strata and 94% for the discards strata were not sampled). Sample numbers were generally low for strata that were sampled (4% of the landings strata and 0% of the discard strata had 5 or more samples)

4) It is possible for numbers-at-age to be <0.001 thousand (i.e. less than one fish). This can arise when a certain year-quarter-area-gear-vessel length-mesh-fishery-specon combination has a very small amount of effort or landings. The numbers-at-age estimated for the year-quarter-area-gear combination will then be multiplied by a very small number. When these numbers are rounded to three decimals, a zero value can result.

For this reason the discard data and age composition data should only be used with extreme caution, keeping in mind how the data were inferred. It would be more useful to ask for the raw data so this can be aggregated at whatever level is appropriate.

4.3.1.8 Latvia

Latvian data were submitted on time and in accordance with required format. Fleet specific landings, estimated discards and biological data were provided for 2013 only and appended to the previous time series. All data concerning fishing operations e.g. gear, mesh size, area etc. were derived from logbooks and covered all fleet segments.

Discards data were collected under the Latvian National Programme 2011-2013 according to the sampling strategy. The sampling scheme does not cover all quarter-gear-mesh size combinations in the data call.

Latvian fishermen do not traditionally use drifting lines (LLD).

4.3.1.9 Lithuania

Lithuania provided catch data, both landings and discards, complete set in the required format for 2013. A number of 212 records were submitted for 2013. No updates for previous year's data. STECF EWG 14-13 notes that discards for cod only were estimated and provided. Lithuanian fishermen do not traditionally use drifting lines (LLD).

4.3.1.10 The Netherlands

The Netherlands provided landings and discard data for 2013. Updates for landings for previous years, 2003 – 2008, were submitted. This update regards all species and all gear categories except for cod, plaice and sole caught by gear category BT2. These three species were already present in the 2003 – 2008 landings data. Note that only landings data was updated; it was not accompanied by discard or age data.

After correction of some records all records (1636 rows in Table A) passed the Data Submission filters.

4.3.1.11 Poland

A number of 1674 records were submitted for 2013. No updates for previous years' data. No mesh size range information reported for vessels under 8 meters. No specific condition reported. Few records for vessels > 8 m with no mesh size range information mainly affecting pots and gills. Only 17 records with discard information for COD, FLX, and FPP.

Information on special conditions (BACOMA window, T90) was not available as these data are not compulsory to report in logbooks according to control regulations.

The following section is kept unchanged from last year report: Comparison of 2011 onwards mesh size data with 2004-2010 shows that they are not consistent and significantly different. MS explanation: neither mesh size nor SPECON information were available from the database for 2004-

2010, thus these information were estimated based on expert knowledge and assumptions. Targeted species assemblages (métier), actually fish species caught and gear used were taken into account to identify mesh size. In 2011-2013 data about mesh size were taken from logbooks.

4.3.1.12 Portugal

Portugal resubmitted the entire data series on landings for the period 2003 to 2013. Several differences were found between the resubmitted data in 2014 and the data submitted in 2013.

Due to a late availability of the Landings and discards datasets little analysis were performed on the Portuguese dataset. However it's evident that annually landings volumes are consistently lower over the data series. The data series must be revised and resubmitted in due time for the second effort meeting.

In the period 2004-2010, hake discards were provided, assuming that they were proportional to the trawl landings. However, considering that, according to the Data Collection Framework raising procedures, discards are raised using effort and not landings and that the data call grouping is not consistent with the sampled DCF métiers, in 2012 hake discards from Portugal were removed from the database.

For 2013 discard estimates were provided only for hake. These estimates must be considered provisional. The final estimates will probably be reviewed for the autumn meeting and more species will be added.

At present, the procedure used to raise discards from haul to fleet level in the Portuguese trawl fisheries is adapted from Fernandes et al. (2010) (Jardim and Fernandes, in prep.). Using this procedure, species with low frequency of occurrence or abundance in discards (i.e., a large number of zeros in the data set) cannot be reliably estimated at fleet level (Jardim et al., 2011). The frequency of occurrence and abundance of most species in the discards of the Portuguese bottom trawl fleet was below 30%. Consequently, annual trawl discard volumes and length frequencies at fleet level were only estimated for some métiers, species and years.

In what concerns gillnets and trammel nets, sampled from late 2009 onwards, the sampling methodologies used in these fisheries were only recently standardized (Prista and Jardim, 2011). These are only two of the several métiers that can be performed by the so-called Portuguese polyvalent fleet (or multi-gear fleet). Besides nets, the vessels in this fleet are also frequently licensed to use pots and bottom longlines, and frequently carry out several métiers in a single fishing trip and/or switch métiers during the year. Such uncertainties in determining fishing effort at métier level, along with low spatial-temporal coverage of fleet activity and difficulties in raising data from multi-métier fishing trips to fleet level have hampered the estimation of gillnet and trammel net discards. No estimates at fleet level have been performed to date. Bottom longlines are not among the selected métiers for onboard sampling under the DCF National program.

In 2013, discard estimates are presented only for bottom otter trawl. The problem of different metier aggregation in DCF and in the data call request is not yet solved and the total discards by species were allocated to the data call more disaggregated metiers proportionally to their landings, although this procedure is considered inappropriate. In this way, discards are presented for hake for the period 2004-2013 and blue whiting for the period 2004-2012; also for some years for *Nephrops* and mackerel. Zero discards have been reported for black scabbard fish, sole, sea breams, several species of sharks and *Nephrops* in most of the years.

No discard estimates were presented for other metiers than trawl due to the reasons presented above.

Age data: There is a serious concern about European hake growth. Tagging experiences show that growth rate could be two times higher than expected, although the true value is uncertain (ICES,

2009). At present, the assessment model is length based (ICES, 2010a). Therefore, no age data were provided for hake. For Norway lobster, there is not a standardized ageing methodology.

For the deep sea species caught in CECAF 34.1.2 EU, age data was submitted for black scabardfish (BSF) for years 2010 and 2011.

4.3.1.13 Spain

Data provided in 2014:

On 26th May 2014 Spain provided catch data from 2013 by quarter, vessel length range, gear, mesh size range and metier (fishery). In the cases where there were not mesh size data 100-119 category was introduced in the mobile gears and 100-109 in the passive gears. Mesh sizes in longline were deleted. Landings were provided for BSA; ICES Subareas 1, 2, 10 and 12; ICES Divisions 6a, 6b, 7a, 7b, 7c, 7d, 7e, 7g, 7h, 7j, 7k, 8a, 8b, 8c, 8d, 8e, 9a, 9b, 14a and 14b and CECAF Divisions 34.1.1, 34.1.2, 34.1.3 and 34.2.0. Landings were divided by COAST/EU/RFMO zones where appropriate. RFMO or null in area 34.1.1 (Moroccan coast) was substituted by COAST. Empty 34.1.2 (Canary Islands, Spain) was substituted by EU. Empty or EU in 34.1.3 (coast of several North African countries) were substituted by COAST. Empty 34.2.0 were substituted by RFMO. Empty 7ck, 8d and 9b were substituted by EU. In all files deep trips were duplicated, once using special condition DEEP and another specon NONE, as requested in the data call. In ICES Divisions 8c and 9a there were not special condition (IIB72ab) landings (Hake Plan) in 2012 and 2013 because no vessel in those years has applied for that condition in relation to hake and *Nephrops* recovery plan (Annex IIB of R(EU) No 43/2012 and No. 39/2013). Landings were not divided in either Cod or Sole Plan special conditions owing to lack of time. Landings were provided for 85 of the 125 species of the 2014 data call. Data about European pilchard and "other species" (new categories in the species list) have been provided. No information about vessels under 10 meters was provided since the data source was logbooks, but Annex IIB (Hake Recovery Plan in 8c & 9a), which is the main Plan for Spain, does not deal with vessels under 10 meters.

A wrong assignment of landings data to metiers previous to 2012 was detected (the assignment of landings to metiers is mandatory only since 2009). This provoked wrong discards estimations. Therefore, all the species and all year discards estimations were redone according with the scientific values presented in ICES working groups in the past. Nevertheless, for technical reason, these new estimations were based on landings. Therefore, if there were not landings of one species in a stratum there are not discards of that species in that stratum.

Discard data were presented for all years (2003-2013) by quarter; from 2003 to 2009 for 8c and 9a divisions and gear otter and for 2012 and 2013 for divisions 6a, 6b, 7b, 7c, 7g, 7h, 7j, 7k, 8c and 9a by otter metiers. For 2013 data, there were also 8c gillnet metiers discard data.

As Spain sent a new discards time series, for technical reasons the landings time series was resent with exactly the same values that they were previously.

No of samples (trips) of landings by quarter and No of length measurements of landings by species and quarter were provided by gear for 2002 to 2009 data and by metier for 2012 and 2013 data. No of age measurements of landings were provided by stock from 2003 to 2008 data.

No of samples (otter trips) of discards and No of length measurements of discards by species were provided by gear from 2003 to 2009 and by metier in 2012. No of age measurements of discards were provided by stock from 2003 to 2012 data.

Hake and monkfish ages were not provided since there are relevant doubts in the correspondent international working groups about the ageing of these species (see February 2010 STECF Hake

Benchmark and 2011-2013 ICES WGHMM reports). Nephrops ages were not provided because there is not a standardized methodology for ageing of this species. Anchovy age data for were provided for 2003, 2004, 2006 and 2012. Mackerel age data were provided for 2003-2009. Blue whiting age data were provided for 2012.

Data provided in 2011 and 2012:

Spain did not provide data in 2011 and 2012; therefore, there are not any kind of data of 2010 and 2011.

4.3.1.14 Sweden

Sweden has previously provided catch data, both landings and discards, in the required format for the years 2003-2012, including vessels <10m LOA. In 2014 a complete set of catch data for the data year 2013 was submitted. In addition, catch data for the years 2009-2012 was updated, due to a previous error in the Swedish Pandalus catches.

Age distribution data was submitted for cod landings and discards in the Baltic, Skagerrak and Kattegat and for plaice discards in Skagerrak and Kattegat. Landings in tonnes were retrieved from logbooks for vessels >=10m LOA and from monthly coastal journals for vessels <10m. Age distribution data for landings was collected by market sampling and discard data was collected under the Swedish on board discard sampling programme. Discard data was raised according to the national sampling schemes, stratified by nationally identified fisheries and not by the highly disaggregated vessel length classes and mesh size groups in the STECF data call, to maintain as much stability as possible in the raising procedure and not compromise the quality of the data by extrapolations from very few samples. Discards were then allocated to the more disaggregated format proportionally to the landings of the target species used in the raising. This has the implication that it is not always possible to compare discard rates or age distributions between gears and mesh sizes in the format of the STECF data base since they could have been estimated from the same samples. Vessel length classes were not considered in the stratification and raising. No discards have been submitted for fisheries not covered by the sampling programme. The main nationally identified Swedish fisheries that were sampled for discards (each one treated as one stratum) in 2013 were:

In the Baltic:

- Trawls targeting cod (Mesh size >=105mm, including mid water trawls targeting cod and both trawls with BACOMA window and T90 mesh)
- Passive gears (including both gillnets and trammel nets)

In Skagerrak and Kattegat (Skagerrak and Kattegat being treated as separate strata):

- Trawls targeting demersal fish/Nephrops, with a mesh size of >=90mm, (including both TR2 and TR1)
- Trawls targeting Nephrops, with a 35mm sorting grid and a mesh size of 70-89mm (under derogation CPart11 in the cod plan)
- Demersal Pandalus trawls (Mesh size 32-54mm) with a 19mm sorting grid and a fish retention device, combined with an escape window, which allows catch of large fish.
- Demersal Pandalus trawls (Mesh size 32-54mm) with a 19mm sorting grid, no fish retention device.

Swedish landings of cod have been prohibited due to quota closure in Skagerrak and/or Kattegat during parts of 2003, 2004, 2005, 2006, 2012 and 2013, which has resulted in discard of adult cod.

Gillnets were not sampled in Skagerrak or Kattegat, meaning that discards for those gears have been extrapolated in the STECF data base from Danish discard data.

Drifting longlines, targeting salmon, were included in the "LONGLINE" category in the data set.

Since hand and pole lines (LHP) are under effort regulation in the cod plan in the Baltic Sea but not in Skagerrak and Kattegat, and the "LONGLINE" category is considered a regulated gear in the STECF data base, those gears were only included in the "LONGLINE" category in the Baltic and not in other areas. Since there is currently no suitable gear category in the data call for those gears in Skagerrak/Kattegat, they have been included in the "none" gear category and are accounting for the large majority of records with missing gear information in the Swedish data.

There is no information on misreporting.

4.3.1.15 United Kingdom

England, Wales: Data for 2013 were submitted. No update was provided for previous years. The discard and biological data were collected by the English on-board discard sampling programme. The data was raised accordingly with level of disaggregation the STECF data call required, though such disaggregation is not consistent with the sampling programme design which is set up to provide information for stock assessment; in many cases this means that very few samples were available per strata. The fully Documented Fishery vessels were treated separately for discard and biological raising, where such samples were available.

Northern Ireland: AFBNI provided data on discard estimates and biological sampling for 2013. Length frequencies from Northern Ireland observer trips were raised to the trip level, summed across trips during each year then raised by the nominal effort using the proportion of effort in each category to the sum of effort in the fleet segment to give raised annual LFDs for discards.

A total of 20186 records were submitted for 2013, for England, Wales and Northern Ireland. As in previous years, there were a number of records with missing mesh size information and a combination of DEEP specific conditions and BSA area which were ignored during the analysis. Specific conditions reported were DEEP, CPart11, CPart13a,b,c, FDFIIA and FDFIIC.

Scotland: Data for 2010, 2011 and 2012 were re-submitted to correct errors in the biological data related to FDF vessels. A total of 18870 records were submitted for 2010, 2011 and 2012. A new submission of 4646 records were submitted for 2013. There were a few records with missing gear and/or mesh size information, these are included for completeness.

Vessels <10m: No specific consideration is given to estimating discards for vessels < 10m and discard sampling staff tend not to sail on vessels in the 10 metre and under category. In 2003 the Scottish Fisheries Statistics showed landings of the main commercial demersal species from vessels <=10 m to be below the level where sampling intensities as defined in Appendix XV (Section H) of regulation (EC) 1639/2001 (Table 2) requires sampling to be carried out. Estimation of demersal discards for vessels <10m is based on the assumption that all vessels targeting Nephrops and operating in the same sampling area have the same catching and discarding characteristics.

4.3.2 Data availability Table B nominal fishing effort 2000-2013

Table 4.3.2.1 Overview of the effort data submission for the 2014 Fishing Effort Regimes data call. In bold the dates when effort data where submitted after the official submission deadline (14th of May).

Country	Data Submission	First Submission (Deadline 14-May)	Last Re-submission
BEL	DCF website	09 May	09 May
DEU	DCF website	14-May	14-May
DNK	DCF website	14-May	14-May
ESP	DCF website	**16-May**	**16-May**
EST	DCF website	**05-June**	**05-June**
FIN	DCF website	14-May	14-May
FRA	DCF website	**25-May**	**25-May**
GBR	DCF website	**05-June**	**05-June**
GBR SCO	DCF website	13-May	**10-June**
IRL	DCF website	12-May	12-May
LTU	DCF website	13-May	13-May
LVA	DCF website	10-May	10-May
NLD	DCF website	13-May	13-May
POL	DCF website	13-May	13-May
PTR	DCF website	14-May	**17_June**
SWE	DCF website	12-May	12-May

4.3.2.1 Belgium

Data submitted for 2013 compose of 143 records in total. No update for previous year's data was needed. There were a few records submitted with no mesh size information for trammels, gillnet and dredges. The only specific condition reported for 2013 data was SBCIIIart5.

Belgium did not provide any information for vessels under 10m.

Belgium provided effort data (kW*days at sea) for 2003-2013 by quarter, for all relevant areas where the Belgian fleets are operational. Since 2003 effort (and landings) are split proportionally over the rectangles as effort became available by rectangle from logbook data. As Belgium does not have trip-by-trip information on the true mesh size for its fleets for 2003-2006, Belgium (as well as other countries) agreed to assume certain mesh sizes for its beam trawler fleets. Beamers operating in area VIIIa,b were assumed to use a 70-79 mm mesh size as this is the minimum legal mesh size in that area for beamers. For the North Sea, the trips were split according to the rectangles reported in the logbooks, and mesh sizes were allocated in line with Council Regulation (EC) N° 2056/2001. This regulation stipulates that

beam trawlers are prohibited to use less than 120 mm in ICES Division IV to the north of 56° 00' N. Therefore all beam trawl information from this part of ICES Division IV was accounted against an assumed >120mm mesh size. The same regulation also stipulates that within the rectangle with coordinates along the east coast of the UK between 55° 00' N and 56° 00' N and the points 55° 00' N – 05° 00' E and 56° 00' N – 05° 00' E, beam trawlers can use 100 to 119 mm mesh size. Here also it was assumed that the mesh size used by the Belgian Beam trawl fleet was 100-119 mm. For the rest of ICES Division IV (the southern part) a mesh size of 80-89 mm was assumed for the beam trawlers. Apart from these assumed mesh size which are based on rectangle information from logbooks, it was also assumed that the shrimp fishery used a mesh size of 16-31 mm. The mesh size of the beam trawl fleets in the other area's was assumed to be 80-89 mm. Since 2007 mesh sizes used by beam trawls operating in different areas have been based on the true mesh sizes used on each trip.

Trip information on the national data base calculates days at sea based on the voyage start date and the voyage end date. For example, a voyage starting on one date and returning (landing) the following day will be accounted for 2 days at sea. Each day a vessel is at sea is counted only once with the effort details allocated according to the longest voyage on that date. Nominal effort in kWdays is calculated as days at sea multiplied by the power of the vessel in kilowatts at the trip landing date. Activity and gear is assessed daily; where activity in a single day covers more than one area or more than one gear; that day's effort is allocated completely to the area/gear with the longest activity that day. Based on the detailed information given it remains unclear to the STECF EWG 14-13 if the data are consistent with Control or DCF Regulation.

The Belgian gear categories are: beam, dredge, gill, longline, otter, and trammel. For trammel nets, no assumptions of mesh sizes were made. The only specific condition reported for 2013 data was SBCIIIart5 for all Belgian vessels operating in areas 8a and 8b.

4.3.2.2 Denmark

4.3.2.2.1 Description of Danish procedures

Danish data were submitted on time, and with the requested information for all tables. Last year, Denmark had proceeded to a major revision and had resubmitted the whole time series 2003-2012. Therefore, no revision of older data was made this year, and only 2013 data were provided according to the same procedures.

The details of the calculations were explained in last year's report, and are summarised here. Procedures have been harmonised between the Danish AgriFish Agency and DTU Aqua, and all estimates are now provided using DTU Aqua's DFAD database, which is a coupling of the logbook register, the sales slips register and the vessel register based on a logbook sheet number. There are some few cases where the logbook area differs from the sales slips area, or where the Baltic subdivision is missing. Therefore a standard procedure for area assignment has been implemented for setting the "DFAD area", following the rules:

1. If there is a logbook area this is used
2. If the trip does not have a logbook the sales slips area is used
3. In the Baltic Sea if the square is 39G4 and the logbook area is 3D and the sales slip area contains information about the subdivision (3D24 or 3D25), the sales slips area is used.
4. If the area is 3D, the ICES rectangle information is used to assign the subdivision.

5. If the area is still 3D (no ICES rectangle information is available), the sales slips area is used.
6. If the area is still 3D the area of the previous trip with the same vessel within 3D with a subdivision assigned, this subdivision is used.
7. If the area is still 3D the most used subdivision for that vessel is used.
8. If the area is still 3D the most used subdivision during the year is used.

The last steps are mainly used on old data.

SPECON information is as follows:

- DEEP: The deep-water fishery is defined as option *(2) catch of Deep Sea species retained > 100 kg*. For the effort data this has been calculated from the logbook catch registration, which is the weight estimated by the fisherman. In DFAD the weights from the sales slips are used. When the weights of deep water species are close to 100 kg, the difference in the weight estimated and measured might lead to a difference in which trips goes into the DEEP specific condition.

- FDFBAL : In the Baltic Sea the fishermen are not obliged to keep the camera turned on. The fully documented fishery by the Danish AgriFish Agency is only implemented in the North Sea and Skagerrak.

All records (1099 rows in Table B) passed the Data Submission filters, but, as every year, a small proportion of the reported Danish fisheries activities have missing information. 3% of nominal effort has no gear information, being mainly small vessels. For larger vessels, missing gear information is expected to be linked to some extent to longline coding (see below). There is 1% of effort with gear but no mesh size provided (mainly dredge). The Danish 2013 submission still does not cover the special conditions BACOMA or T90 in the Baltic, as these are not compulsory to report in logbooks according to control regulations 1224/2009 and 404/2011.

4.3.2.2.2 Concerns about the data call

On May 15th, the Danish AgriFish Agency wrote to the EC about a number of concerns regarding the data call. These concerns are reported below:

"In relation to upload of the Danish figures, the AgriFish Agency is of the opinion that it is necessary to provide The Commission with comments to the methodology for compiling the figures in order to have transparency in the process and ensure proper use and interpretation of the data. Further it is also necessary to address a few remarks to the annexes of the data call in order to ensure a common understanding.

Our comments below refer to point B and D and corresponding appendixes regarding effort data for 2000-2013 (point B and D):

1) *With regard to point 6 GEAR (B). In Council Regulation 1342/2008, annex 1, the different gear segments are defined by stating the statistical code for the gear(s) in parenthesis. However, the gear coding in appendix 3 of the data call is not consistent with the gear coding of Council Regulation 1342/2008. This is the case for GILL and LONGLINE. GILL includes codes GNS and GND; however none of the two statistical codes are mentioned in 1342/2008 which only mentions GN which is a general code for Gill Nets. This causes confusion when compiling data. With regard to LONGLINE only LL is mentioned in Regulation 1342/2008*

but LONGLINE includes poles (LHP), drifting lines (LLD) etc. Again this causes confusion in establishing a link to existing administrative procedures.

2) *Further point 6 GEAR (B) and 4 GEAR (D) : In Council Regulation 1098/2007 there are no specific gear codes mentioned, but in Council Regulation 1124/2010 (TAC and Quota Regulation for the Baltic 2011), Annex 2, there are mentioned a wide range of gears, although not with a statistical code, which all has to have a mesh size of 90 mm or above. In Annex 2, it is stated that drifting lines (LLD) should not be included and there is no references to drift nets. This causes confusion when compiling the data and establishing link to existing administrative procedures.*

As stated above in point 1) and 2) there is lack of consistency between the gears applied in the administrative legislation and the gears applied in the data call. Analysis and conclusions based on this data call must bear these inconsistencies in mind.

The gears applied by Denmark in this data call are:

POINT B	*POINT D (REGGEAR>=90 mm)*
BEAM : TBB	*BEAM : Not included*
OTTER : OTB, TB, PTB, OTT, TBN, TBS	*OTTER : OTB, TB, PTB, OTT, TBN*
DEM_SEINE : SDN, SSC, SB	*DEM_SEINE : SDN, SSC, SB*
PEL_TRAWL : OTM, TM, PTM	*PEL_TRAWL :OTM, TM, PTM*
PEL_SEINE: PS, PSN	*PEL_SEINE: PS, PSN*
DREDGE : DRB	*DREDGE : Not included*
LONGLINE : LL, LX, LH, LLS, LLD, LHP	*LONGLINE : LL, LX, LLS*
GILL : GN, GNS, GND	*GILL : GN, GNS, GND*
TRAMMEL : GTR	*TRAMMEL : GTR*
POTS : FYK, FPN, FPO, FIX	*POTS : Not included*

3) *With regard to point 9 AREA (B) and 5 AREA (D) Denmark will like to stress that the data quality on IBSFC areas in 3C24 and 3D24 is not as good as for the remaining areas when it comes to registrations for square 39G4 which is in both areas. The quality of the data has improved in recent years, but still there may be inconsistences.*

4) *Point 10 (B) SPECON: There is no information in the logbook with regard to whether a vessel has applied BACOMA or T90 and the vessel is not obliged to fill in this information in the logbook. Consequently Denmark has no information with regard to Baltic Technical Conditions. Further Denmark has only applied article 13C in Regulation 1342/2008 and no data is reported for Cod Plan R(EC) No 43/2009. Deep-water species is defined in line with Regulation 2347/2002 which states fishing trips >= 100 kg mix of species mentioned in the regulation. Fully documented fisheries are defined by the vessels participating and the date of entering the scheme.*

5) *Point 11 FISHING_ACTIVITY (B): Denmark submitted data previous years based on the definition in the data call which was calendar days at sea. This is also the case this year although it is not the definition applied for administrating the rules in regulation 1342/2008 and regulation 1098/2007. However the baseline was calculated with this definition and the Commission was informed of the inconsistency between the definition in the data call and the definition applied by the Danish Administration and as such the time series of the data call will not be broken. In general applying calendar days combined with gear codes defined in the data call results in approximately 5-10 percent higher fishing activity and even more in one or two segments.*

Denmark believes that there should be transparency in the process of how data are compiled in Member States and the mentioned points above are not a methodology report, but points which help

researchers understand what data can be used for when conducting analysis. Therefore Denmark suggests that all Member States submits a methodology report on how data are compiled (data sources, definitions, sampling methods applied etc.) and the reports are distributed to every country. This procedure is well known for Member States submitting fishery statistics to Eurostat according to Regulations administered by Eurostat."

4.3.2.3 Estonia

A number of 67 records were submitted for 2013. No updates for previous year's data.

The effort (days at sea) was calculated according to the Control Regulation. STECF EWG 14-16 noted that the data provided are only for vessels >=12m.

4.3.2.4 Finland

A number of 249 records were submitted for 2013. No updates for previous year's data.

4.3.2.5 France

A total number of 2795 records were submitted and fitted in the system for 2013. No updates for previous years' data. There were 6 records with missing area information for vessels less than 10 meters (~200 days at sea) which have not been taken into account as well 2 records for area 3a (less than 2 days at sea) but with no distinction between 3as and 3an. No mesh size was reported for pots records. Some inconsistent "gear*mesh size*area*specon" combination were observed, it concern notably the combination "pots*mesh size:-1". Only data regarding gears that are requested in the official data call have been submitted and as a consequence records regarding gears not requested are missing.

The specific conditions Cpart11, Cpart13B, IIB72ab, DEEP and SBcIIIart5 have been provided for eligible vessels and fisheries for 2013 as last year for 2012. The data were not updated for 2009-2011 on this specific issue.

As in previous years, records for specific condition DEEP and records for specific area BSA are double counted.

Fishing activity data have been provided only for the period 2010 – 2013 (no fishing activity data for 2003 – 2009). Fishing capacity data were provided for the second time for 2013 in kW as last year for 2012. No fishing capacity data are available for the other years. It should be noted that this field is asked as kW or GT depending of the area and it would be much easier to fill it if it was duplicated in kW and GT.

France provided effort data for 2003-2013 derived from official logbook databases for all registered vessels 10m and over and from monthly declarative forms (contain declarative monthly data on fishing effort and catches per species by dates, locations and gears) for all registered vessels under 10m (logbooks are not mandatory for these vessels but they are covered by these monthly declarative forms). The data covers all areas requested in the data call and conform to the requested aggregation, by quarter, area, gear and mesh sizes. Days at sea are estimated with consistency with the DCF regulation (any continuous period of 24 hours (or part thereof) during which a vessel is present within an area and absent from port).

4.3.2.6 Germany

Data submitted for 2013 consists of 509 records in total. There were very few records with missing gear information as well as records for pots without any mesh size reported.

Germany provided fleet specific effort data for 2000-2013 in the requested formats derived from official logbook data. However, data on vessels <10m in the North Sea and <8m in the Baltic do not cover all vessels and trips because these vessels normally do not have to fill out logbooks. For the scientific evaluations in this report, the calculation procedure follows closely the description in the STECF technical report "Some technical guidance towards national fleet specific fishing effort and catch data aggregation" (ISBN 978-92-79-12134-0). This implies that effort related to rescue operations, etc. is not subtracted. The data consider the aggregation by quarter, area, gear, mesh size, and existing derogations including special conditions of 8.1.a, 8.1.c, 8.1.d, 8.1.e and 8.1.f for the years 2000-2008. For 2009 onwards the special conditions from the new cod management plan are used. Some records did not pass the Data Submission filters when some information on e.g. gear, mesh size was missing, but these records represent only a very small proportion of the reported German fisheries activities. They are related to fishing operations with gears for which no code is available in the STECF data call.

For the Baltic Sea, drifting lines LLD are included in regulated LONGLINE category.

4.3.2.7 Ireland

Data submitted for 2012 - 2013 compose of 1530 records adding to unchanged 2000-2011 data from the 2013 submission. There were some records with missing gear information as well as some records for pots, gills, dredges and otters without any mesh size reported.

Ireland provided fleet specific kW*days-at-sea, GT*days-at-sea, kW capacity, and vessel numbers for 2012-2013 in the requested aggregation format, derived from the national logbook database (IFIS) for vessels ≥10 meters in length. The following special condition information was supplied: none, CPart13a, CPart13b, CPart13c, CPart13d, CPart11 and DEEP. Specon DEEP is a duplication of effort within the relevant areas. Days-at-sea data were constructed following the methodology guidelines provided by the Joint Research Council at a meeting held by the Commission in February 2009. Only one gear and area combination is applied to any one vessel day assigned according to the dominant fishing activity. Data from 2000-2011 from the 2013 submission were retained in 2014. Data revisions made to 2012 update the provisional data available for the 2013 submission.

Fishing activity was not provided as Ireland does not operate within the areas for which this data was requested.

Mesh size information was only available from 2003 onwards.

Days-at-sea effort for 2000-2002 is presented as a calculated proxy, obtained from the average ratio of operational fishing days to days-at-sea by gear during 2003 to 2005.

Vessels less than 10m in length are not required to complete logbooks, and therefore no effort is available for these vessels.

It was not possible to accurately aggregate data to the level of EU, coast, and RFMO. Data was assigned according to the following: Where an EU category existed within an area, all data from that area was categorised as EU, with the exception of ICES division X assumed to be RFMO. Those ICES divisions without an EU category where assumed as 1 coast and 2 coast.

4.3.2.8 Latvia

Latvian data were submitted on time and in accordance with required format. Fleet specific effort data by quarter, gear, mesh size and area were provided for 2013 only and appended to the previous time series. All requested effort data, such as days at sea, kW*Days and GT*Days completely covered all fleet segments for 2008-2013, and only offshore fishery for the period 2003-2007.

All effort data on the Latvian Baltic Sea fleet were taken from Integrated Control and Information System for Latvian fisheries (ICIS), which includes the logbook data and technical parameters of fishing vessels from Fishing Vessels Register. The data were collected through two types of logbooks –offshore and coastal. Registration number of boat was included in the coastal logbooks since 2008. Therefore, detailed data on kW*days and GT*days aggregated by quarter, vessel segments, gear and area for boats less than 10 m can be provided only from 2008 and afterwards. However, the number of “days at sea” were presented for small scale fishery for the period 2005-2013.

Latvian data on fishing activity were calculated by the same way during the recent years. The number of "days at sea" was counted as the sum of calendar days by subtracting the date of returning from the date of departure. Departure and return date concerning one trip is accepted as one day. If the vessels during the trip operated in more than one area each day was attributed to the area were the most fishing time was spent.

4.3.2.9 Lithuania

A number of 95 records were submitted for 2013. No updates for previous year’s data.

Days at sea were measured according Control Regulation.

4.3.2.10 The Netherlands

The Netherlands provided effort data for 2013. No updates for previous years were submitted. The data was provided in the requested format using the official logbook data for vessels < 10 m, >= 10 <=15 m and >15 m.

All records (371 rows in Table B) passed the Data Submission filters.

Effort calculation is assumed to be based on days absent from port. As the national database contains not only departure date and arrival date but also the time of departure and the time of arrival, the absence can be calculated more precisely than just days. At the September/October meeting this information will be made final, based on information of the Ministry of Economic Affairs.

4.3.2.11 Poland

A number of 702 records were submitted for 2013. Unavailable mesh size range information for vessels under 8 meters. Additionally missing mesh size information for 22 records (vessels 8-10 meters only) for relatively low number of days 2.5 thousand out of 69.4 thousand days (3.6%). No specific condition reported. Different method of estimation of mesh size ranges in 2011 onwards

(compared to the previous years) caused inconsistent mesh size classes, which used to be "110-156" in 2004-2010 period. This mostly concerns vessels under 8 meters. Other variables seem to be very consistent across years.

4.3.2.12 Portugal

Portugal provided kW*days, GT*days and number of vessels for 2000-2013 in the requested aggregation format, derived from the national logbook database for vessels ≥10 meters in length. Data are provided by quarter, vessel length, gear, mesh size range, area and special condition. However during the evaluation of the effort datasets, EWG14 06 found the figures on effort were significantly high when compared with those submitted during previous years. By evaluating the basic files uploaded by the MS it was found the effort data series had been uploaded several times files resulting in duplicated, triplicated or even quadruplicated figures. On agreement with the national data submitter, Portuguese effort data was cleared from the database and data re-submitted after the meeting.

Vessels < 10 meters are not required to complete logbooks. Effort of these vessels was estimated based on sales records and data are not available for all fields of the data call (i.e. fishing activity and fishing capacity).

4.3.2.13 Spain

Data provided in 2014:

On 16th May 2014 Spain provided nominal fishing effort data from 2013 by quarter, vessel length range, gear, mesh size range and metier (fishery). In the cases where there was not mesh size data the 100-119 category was introduced in the mobile gears and 100-109 in the passive gears. Mesh sizes in longline were deleted. Data were provided for BSA; ICES Subareas 1, 210 and 12; ICES Divisions 6a, 6b, 7a, 7b, 7c, 7d, 7e, 7g, 7h, 7j, 7k, 8a, 8b, 8c, 8d, 8e, 9a, 9b and 14a, 14b and CECAF Divisions 34.1.1, 34.1.2, 34.1.3 and 34.2.0. Data were divided by COAST/EU/RFMO zones where appropriate. RFMO or null in area 34.1.1 (Moroccan coast) was substituted by COAST. Empty 34.1.2 (Canary Islands, Spain) was substituted by EU. Empty or EU in 34.1.3 (coast of several North African countries) were substituted by COAST. Empty 34.2.0 were substituted by RFMO. Empty 7ck, 8d and 9b were substituted by EU. In all files deep trips were duplicated, once using special condition DEEP and again using specon NONE, as requested by the data call. In ICES Divisions 8c and 9a there were not special condition (IIB72ab) data (Hake Plan) because no vessel in 2012 or 2013 has applied for that condition in relation to hake and *Nephrops* recovery plan (Annex IIB of R(EU) No 43/2012 and No 39/2013). Data were not divided in either Cod or Sole Plan special conditions owing to lack of time. Spain provided fishing activity, nominal effort, GT days at sea and number of vessels, as the 2014 Data Call requested.

No information about vessels under 10 meters was provided since data source was logbooks, but Annex IIB (Hake Recovery Plan in 8c & 9a), which is the main Plan for Spain, does not deal with vessels under 10 meters.

Spain did not resend effort data previous to 2013.

Data provided in 2011 and 2012:

Spain did not provide data in 2011 and 2012; therefore, there are not 2010 and 2011 data.

Data provided in 2010:

All the following comments correspond to the data provided in 2010:

Spain provided nominal fishing effort data from 2002-2009 data. 2000 and 2001 data were not provided because of the low quality of logbooks those years. Data were provided by quarter, vessel length range, gear and mesh size range. Data were provided for 8c and 9a from 2002-2009 divided by special condition IIB72AB and NONE according to the Southern Hake Plan and also special condition DEEP data (according to the Effort Regime in Deep Sea fisheries) were added. For 2009, also DEEP data of ICES Subarea 12 and ICES Divisions 6a, 7b, 7c, 7h, 8a, 8b, 8c, 9a and 14a were provided. Special condition NONE landings according to the Effort Regime in Deep Sea fisheries for 2009 were not provided by misunderstanding of the instructions. Data were divided by COAST/EU/RFMO zones. Spain provided fishing activity, nominal effort, GT days at sea and number of vessels.

No information about vessels under 10 meters was provided since data source was logbooks, but Annex IIB (Hake Recovery Plan in 8c & 9a), which is the main Plan for Spain, does not deal with vessels under 10 meters.

4.3.2.14 Sweden

Effort data was submitted in the required format for 2013. Sweden has previously provided all required effort data in the requested format from 2000-2012. Days at sea were calculated according to the DCF definition, i.e. continuous 24-hours periods absent from port. Effort data for vessels <10m LOA was included but is not considered reliable until 2009.

For the Baltic Sea, drifting lines (LLD) are included in the regulated “LONGLINE” category.

Since hand and pole lines (LHP) are under effort regulation in the cod plan in the Baltic Sea but not in Skagerrak and Kattegat, and the “LONGLINE” category is considered a regulated gear in the STECF data base, those gears were only included in the “LONGLINE” category in the Baltic and not in other areas. Since there is currently no suitable gear category in the data call for those gears in Skagerrak/Kattegat, they have been included in the “none” category and are accounting for the majority of records with missing gear type in the Swedish data.

4.3.2.15 United Kingdom

Voyage information on the non-Scottish UK national data base, FAD, calculates days at sea based on the dates of the voyage start and the voyage end. Voyage information on the Scottish national data base, FIN, calculates days at sea as the number of 24 hour periods in the duration of the voyage, rounded up. Vessels landing into Scotland are entered onto FIN; those landing into the rest of the UK are entered into FAD. Scottish vessels landing out with the UK are entered into FIN; Rest UK vessels landing outwith the UK are entered into FAD. Because most voyages by Rest UK vessels are entered into FAD; the calculation of days at sea is generally date based. Days at sea for voyages leaving on the same date as the return of the previous voyage are adjusted down by half a day applied to each voyage involved.

The information is not available on a comparable basis before 2003 because this was before the completion of the EU wide vessel gross tonnage recalibration exercise. Activity and gear is assessed daily; where activity in a single day covers more than one area (ICES Rectangle level) or more than one gear; that day's effort is apportioned equally between the area/gears recorded.

England, Wales and Northern Ireland: As a fully revised time series (2003-2012) was provided in 2013, and after checks to make sure revisions were not required to earlier years, only data for 2013

was submitted in response to the data call. A number of records were identified with missing mesh sizes – these were treated as follows depending on the nature of the fishing gear in question following the same practice as in earlier years. For mobile fishing gears where this occurred the activity was re-coded as mesh size "<16". Dredge trawls accounted for over 99.9% of the nominal effort involved in such instances. While the amount of effort using dredge gear involved was significant, the fact that it was Dredge gear rather than one of the gears regulated under the effort regimes using mesh size means that there is no impact of this recoding on the conclusions drawn from the data. For passive gears activity reported with a missing mesh size was re-coded as mesh size "10-30". Only Gill nets were involved in such instances with the total level of effort involved being around 0.1% of total effort using Gill Nets in 2013. As such there is no impact of this recoding on the conclusions drawn from the data submitted for activity in 2013 and 213 rows of data sere submitted for activity in 2013. Some records were submitted with both area BSA and special condition DEEP and were ignored in the analysis. Special conditions reported were DEEP, CPart11, CPart13a,b,c,d, FDFIIA and FDFIIC.

Nominal effort in kWdays is calculated as days at sea multiplied by the power of the vessel in kilowatts at the voyage landing date.

GT_days_at_sea is calculated for years from 2003 as the days at sea multiplied by the Gross Tonnage of the vessel at the voyage landing date.

Scotland: A total of 674 records were submitted for 2013. There were some records with missing gear and/or mesh size information. Scotland supplies data where records present no gear type information and/or no mesh size information for the purpose of data completeness. As in previous years there were records for area BSA and specific condition DEEP which were ignored in the analysis. Specific conditions reported were DEEP, FDFIIA, CPart11 and CPart13. Any effort in the Cod Recovery Zone for TR1 and TR2 gears was assigned to special condition CPart13A, CPart13B, CPart13C or CPart13D.

Vessels <10m: For vessels <10m effort is considered under reported 2000-2005 because of under reporting of POTS and shell fishing by hand. The <10m effort data for Scottish registered vessels 2000-2008 excludes voyages landing into ports in England and other non-Scottish areas of the UK. Scottish under 10m boats are known to use more than one type of gear on individual trips or within a quarter and multiple counting of boats is therefore significant.

Vessels landing into Scotland are entered into the Scottish database where the calculation of days at sea is based on the number of 24 hour periods, rounded up. Scottish vessels landing into the rest of the UK are entered into the UK (non-Scottish) database which calculates days at sea based on the dates of the voyage start and the voyage end. Days at sea for voyages leaving on the same date as the return of the previous voyage are adjusted down by half a day. Based on the detailed information given it remains unclear to the STECF EWG 14-13 if the data are consistent with Control or DCF Regulation.

4.3.3 Data availability Table C spatial fishing effort 2003-2013

Table 4.3.3.1 Overview of the spatial effort data submission for the 2014 Fishing Effort Regimes data call. In bold the dates when spatial effort data where submitted after the official submission deadline (14th of May).

Country	Data Submission	First Submission (Deadline 14-May)	Last Re-submission
BEL	DCF website	09 May	09 May
DEU	DCF website	14-May	14-May
DNK	DCF website	14-May	14-May
ESP	DCF website	**16-May**	**16-May**
EST	DCF website	**05-June**	**05-June**
FIN	DCF website	14-May	14-May
FRA	DCF website	**25-May**	**25-May**
GBR	DCF website	**05-June**	**05-June**
GBR SCO	DCF website	13-May	**10-June**
IRL	DCF website	12-May	12-May
LTU	DCF website	13-May	13-May
LVA	DCF website	10-May	10-May
NLD	DCF website	13-May	14-May
POL	DCF website	13-May	14-May
PTR	DCF website	14-May	**17-June**
SWE	DCF website	12-May	12-May

4.3.3.1 Belgium

Data submitted only for 2013. No updates for previous years' data were needed. In total, 594 records were submitted. There were a few records with missing mesh size information for gears such as trammels, gillnets and dredges.

Belgium did not provide any information for vessels under 10m.

Belgium provided effective effort by ICES statistical rectangle in units of hours trawled for the period 2003-2013, derived from the official logbook databases for all vessels ≥10 meters. The data covers all areas in which the Belgian fleets are active and conform to the requested aggregation, by quarter, area, gear and mesh sizes. No spatial effort information is available for vessels less than 10m in length.

Trawled hours were calculated by summing fishing time to the aggregation level requested in the data call. To ensure consistency between datasets, the same base operational logbooks data was used as for the aggregation of days-at-sea effort.

As Belgium does not have trip-by-trip information on the true mesh size for its fleets for 2003-2006, Belgium (as well as other countries) agreed to assume certain mesh sizes for its beam trawler fleets. Beamers operating in the Bay of Biscay (VIIIa,b) were assumed to use a 70-79 mm mesh size as this is the minimum legal mesh size in that area for beamers. For the North Sea, the trips were split according to the rectangles reported in the logbooks, and mesh sizes were allocated in line with Council Regulation (EC) N° 2056/2001. This regulation stipulates that beam trawlers are prohibited to use less than 120 mm in ICES Division IV to the north of 56° 00' N. Therefore all beam trawl information from this part of ICES Division IV was accounted against an assumed >120mm mesh size. The same regulation also stipulates that within the rectangle with coordinates along the east coast of the UK between 55° 00' N and 56° 00' N and the points 55° 00' N – 05° 00' E and 56° 00' N – 05° 00' E, beam trawlers can use 100 to 119 mm mesh size. Here also it was assumed that the mesh size used by the Belgian Beam trawl fleet was 100-119 mm. For the rest of ICES Division IV (the southern part) a mesh size of 80-89 mm was assumed for the beam trawlers. Apart from these assumed mesh size which are based on rectangle information from logbooks, it was also assumed that the shrimp fishery used a mesh size of 16-31 mm. The mesh size of the beam trawl fleets in the other area's was assumed to be 80-89 mm. Since 2007 mesh sizes used by beam trawls operating in different areas have been based on the true mesh sizes used on each trip.

The Belgian gear categories are: beam, dredge, gill, longline, otter, and trammel. For trammel nets, no assumptions of mesh sizes were made. The only specific condition reported for 2013 data was SBCIIIart5 for all Belgian vessels operating in areas 8a and 8b.

4.3.3.2 Denmark

Danish data were submitted on time, and with the requested information for all tables. Last year, Denmark had proceeded to a major revision and had resubmitted the whole time series 2003-2012. Therefore, no revision of older data was made this year, and only 2013 data were provided according to the same procedures.

All records (4334 rows in Table C) passed the Data Submission filters, and only a very small proportion of the reported Danish fisheries activities have missing information.

The Danish 2013 submission still does not cover the special conditions BACOMA or T90 in the Baltic, as these are not compulsory to report in logbooks according to control regulations 1224/2009 and 404/2011.

More details on the Danish data are given under section effort data table B, and these are also valid for Table C.

4.3.3.3 Estonia

A number of 384 records were submitted for 2013. No updates for previous year's data. There were many records with inconsistent mesh size ranges.

STECF EWG 13-13 noted that data were provided only for vessels >=12m.

4.3.3.4 Finland

A number of 980 records were submitted for 2013. No updates for previous year's data.

4.3.3.5 France

A total number of 9905 records were submitted and fitted in the system for 2013. No updates for previous years' data. There were a few records with missing area information for vessels less than 10 meters as well as a few records with missing statistical rectangle information (data is available for the ICES division but not at this level of aggregation) or rectangle information not available in the reference's table (ex. 100B0 or 84I2) which have not been taken into account. As for the others tables, some records for area 3a were as well not taken into account because of the non-distinction between 3as and 3an. No mesh size was reported for pots records. Some inconsistent "gear*mesh size*area*specon" combination were observed, notably the combination "pots*mesh size:-1". Only data regarding gears that are requested in the official data call have been submitted and as a consequence records regarding gears not requested are missing.

The specific conditions Cpart11, Cpart13B, IIB72ab, DEEP and SBcIIIart5 have been provided for eligible vessels and fisheries for 2013 as last year for 2012. The data were not updated for 2009-2011 on this specific issue.

As in previous years, records for specific condition DEEP and records for specific area BSA are double counted.

France provided specific effort data by rectangle for 2003-2013 derived from official logbook databases for all registered vessels 10m and over and from monthly declarative forms (contain declarative monthly data on fishing effort and catches per species by dates, locations and gears) for all registered vessels under 10m (logbooks are not mandatory for these vessels but they are covered by these monthly declarative forms). The data covers all areas requested in the data call and conform to the requested aggregation, by quarter, area, gear and mesh sizes.

4.3.3.6 Germany

Data submitted for 2013 consists of 2124 records in total. There were a small number of records with missing gear information as well as records for pots without any mesh size reported.

Data for vessels <10m in the North Sea and 8m in the Baltic could not be submitted as these vessels do not have to fill out logbooks. Some records did not pass the Data Submission filters when some information on e.g. gear, mesh size was missing, but these records represent only a very small proportion of the reported German fisheries activities. They are related to fishing operations with gears for which no code is available in the STECF data call.

4.3.3.7 Ireland

Ireland provided effective effort by ICES statistical rectangle in units of hours fished for the period 2012-2013 in the requested aggregation format, derived from the national logbook database (IFIS) for vessels ≥10m in length. Hours fished were calculated by summing fishing time reported within the logbook operations. To ensure consistency between datasets, the same base operational logbooks data was used as for the aggregation of days-at-sea effort. The following special condition information was supplied: none, CPart13a, CPart13b, CPart13c, CPart13d, CPart11 and DEEP. Specon DEEP is a

duplication of effort within the relevant areas. Data from 2000-2011 from the 2013 submission were retained in 2014. Data revisions made to 2012 update the provisional data available for the 2013 submission.

No spatial effort information is available for vessels less than 10m in length.

It was not possible to accurately aggregate data to the level of EU, coast, and RFMO. Data was assigned according to the following: Where an EU category existed within an area, all data from that area was categorised as EU, with the exception of ICES division X assumed to be RFMO. Those ICES divisions without an EU category where assumed as 1 coast and 2 coast.

4.3.3.8 Latvia

Latvian data were submitted on time and in accordance with required format. Fleet specific effort data in hours fished by ICES statistical rectangle were provided for 2013 only and appended to the previous time series. Effective effort (Hours fished) was calculated by summing fishing duration for each operation during the trip. For the small boats less than 10 m this parameter was calculated as fishing days multiplied by 24. Effort data were derived from logbooks and covered all fleet segments for the period of 2005-2012. Fleet specific effort data for small boats (<8m) were not provided for 2003 –2004.

4.3.3.9 Lithuania

A number of 163 records were submitted for 2012. No updates for previous year's data.

No comments.

4.3.3.10 The Netherlands

The Netherlands only provided effort by rectangle data for 2013. No updates for previous years were submitted. The data was provided in the requested format using the official logbook data for vessels < 10 m, >= 10 <=15 m and >15 m.

All records (1787 rows in Table C) passed the Data Submission filters.

4.3.3.11 Poland

A number of 4631 records were submitted for 2011-2013. No mesh size range information reported for vessels under 8 meters. No specific condition reported. Relative changes of the total effective effort seem to be consistent across the years. Mesh size data breakdown for 2011 is not comparable with previous years because of different aggregation method used (as described above).

4.3.3.12 Portugal

Portugal provided effective effort (in hours) by rectangle for the period 2003-2013 for vessels ≥ 10 meters with the aggregation requested by the data call, based on logbook data. Data for the ICES areas 6b, 7k, 8c, 8d, 8e, 9a, 9b, 10, 12 and 14, as well as for the CECAF areas were provided.

4.3.3.13 Spain

Data provided in 2014:

On 16 May 2014 Spain provided spatial fishing effort data from 2013 by quarter, vessel length range, gear, mesh size range and metier (fishery). In the cases where there was not mesh size data the 100-119 category was introduced in the mobile gears and 100-109 in the passive gears. Mesh sizes in longline were deleted. Data were provided for BSA; ICES Subareas 1, 2 10 and; ICES Divisions 6a, 6b, 7b, 7c, 7d, 7e, 7g, 7h, 7j, 7k, 8a, 8b, 8c, 8d, 8e, 9a, 9b and 14b and CECAF Division 34.2.0. Data were divided by COAST/EU/RFMO zones where appropriate. RFMO or null in area 34.1.1 (Moroccan coast) was substituted by COAST. Empty 34.1.2 (Canary Islands, Spain) was substituted by EU. Empty or EU in 34.1.3 (coast of several North African countries) were substituted by COAST. Empty 34.2.0 were substituted by RFMO. Empty 7ck, 8d and 9b were substituted by EU. Deep trips were duplicated, once using special condition DEEP and again using special condition NONE, as requested in the data call. In ICES Divisions 8c and 9a there were not special condition (IIB72ab) data (Hake Plan) because no vessel in 2012 and 2013 has applied for that condition in relation to hake and *Nephrops* recovery plan (Annex IIB of R(EU) No 43/2012 and No 39/2013). Data were not divided in either Cod or Sole Plan special conditions owing to lack of time.

No information about vessels under 10 meters was provided since data source was logbooks, but Annex IIB (Hake Recovery Plan in 8c & 9a), which is the main Plan for Spain, does not deal with vessels under 10 meters.

Spain did not resend spatial effort data previous to 2013.

Data provided in 2011 and 2012:

Spain did not provide data in 2011 and 2012; therefore, there are not 2010 and 2011 data.

Data provided in 2010:

All the following comments correspond to the data provided in 2010:

Spain provided spatial fishing effort data for 2002 to 2009. Data were provided by quarter, vessel length range (only in 2009), gear and mesh size range. Data were provided for 8c and 9a from 2002-2009 divided by special condition IIB72AB and NONE according to the Southern Hake Plan and also special condition DEEP data (according to the Effort Regime in Deep Sea fisheries) were added. For 2009, also DEEP data of ICES Subarea 12 and ICES Divisions 6a, 7b, 7c, 7h, 8a, 8b, 8c and 9a were provided. Special condition NONE landings according to the Effort Regime in Deep Sea fisheries for 2009 were not provided by misunderstanding of the instructions. Data were divided by COAST/EU/RFMO zones.

No information about vessels under 10 meters was provided since data source was logbooks, but Annex IIB (Hake Recovery Plan in 8c & 9a), which is the main Plan for Spain, does not deal with vessels under 10 meters.

4.3.3.14 Sweden

Specific effort data by rectangle was submitted in the required format for 2013 this year, including vessels <10m LOA, although the specific effort for the <10m vessels is probably not reliable due to a lack of information of fishing duration in this vessel category. The same information has previously been submitted for the years 2003-2012. Hours fished were derived from fishing time reported by fishing activity in the logbooks.

Since hand and pole lines (LHP) are under effort regulation in the cod plan in the Baltic Sea but not in Skagerrak and Kattegat, and the "LONGLINE" category is considered a regulated gear in the STECF data base, those gears were only included in the "LONGLINE" category in the Baltic and not in other areas. Since there is currently no suitable gear category in the data call for those gears in Skagerrak/Kattegat, they have been included in the "none" gear category and are accounting for the large majority of records with missing gear information in the Swedish data.

4.3.3.15 United Kingdom

England, Wales and Northern Ireland: As a fully revised time series (2003-2012) was provided in 2013, and after checks to make sure revisions were not required to earlier years, only data for 2013 was submitted in response to the data call. A number of records were identified with missing mesh sizes – these were treated as follows depending on the nature of the fishing gear in question following the same practice as in earlier years. For mobile fishing gears where this occurred the activity was re-coded as mesh size "<16". Dredge trawls accounted for over 99.9% of the effort involved in such instances. While the amount of effort using dredge gear involved was significant, the fact that it was Dredge gear rather than one of the gears regulated under the effort regimes using mesh size means that there is no impact of this recoding on the conclusions drawn from the data. For passive gears activity reported with a missing mesh size was re-coded as mesh size "10-30". Only Gill nets were involved in such instances with the total level of effort involved being around 0.1% of total effort using Gill Nets in 2013. As such there is no impact of this recoding on the conclusions drawn from the data submitted for activity in 2013 and 8093 rows of data sere submitted for activity in 2013. Some records were submitted with both area BSA and special condition DEEP and were ignored in the analysis. Special conditions reported were DEEP, CPart11, CPart13a,b,c,d, FDFIIA and FDFIIC.

Where activity in a single day covers more than one area (ICES Rectangle level) or more than one gear; that day's effort is apportioned equally between the area/gears recorded. The hours fished entries are simply days at sea data multiplied by 24. This is because hours fished information obtained from vessels has been proven unreliable (not a required field in logbooks).

Scotland: A total of 4764 records were submitted for 2013. There were some records with missing gear and/or mesh size information.

Effort on voyages fishing in more than one rectangle is allocated according to logbook data. The hours fished entries are simply days at sea data multiplied by 24. This is because hours fished information has been proven unreliable from Scottish vessels (not a required field in logbooks).

Scotland supplies data where records present no gear type information and/or no mesh size information for the purpose of data completeness. As in previous years there were records for area BSA and specific condition DEEP which were ignored in the analysis. Specific conditions reported were DEEP, FDFIIA, CPart11 and CPart13A, CPart13B, CPart13C, CPart13D.

4.3.4 Data availability Table D fishing Capacity in the Baltic Sea 2003-2013

Table 4.3.4.1 Overview of the capacity data submission for the 2014 Fishing Effort Regimes data call. In bold the dates when capacity data where submitted after the official submission deadline (14th of May).

Country	Data Submission	First Submission (Deadline 14-May)	Last Submission
DEU	DCF website	14-May	14-May
DNK	DCF website	14-May	14-May
EST	DCF website	**05-June**	**05-June**
FIN	DCF website	14-May	14-May
LTU	DCF website	13-May	13-May
LVA	DCF website	10-May	10-May
POL	DCF website	13-May	14-May
SWE	DCF website	12-May	12-May

4.3.4.1 Denmark

Danish data were submitted on time, and with the requested information for all tables. Last year, Denmark had proceeded to a major revision and had resubmitted the whole time series 2003-2012. Therefore, no revision of older data was made this year, and only 2013 data were provided according to the same procedures.

All records (25 rows in Table D) passed the Data Submission filters.

The Danish 2013 submission still does not cover the special conditions BACOMA or T90 in the Baltic, as these are not compulsory to report in logbooks according to control regulations 1224/2009 and 404/2011.

More details on the Danish data are given under section effort data table B, and these are also valid for Table D.

4.3.4.2 Estonia

In total 4 records were submitted for 2013.

STECF EWG 13-13 notes that data for vessels <12 m was not provided. No updates for previous year's data

4.3.4.3 Finland

Five records were submitted for 2013. No updates for previous year's data

4.3.4.4 Germany

Data submitted for 2013 consists of 12 records in total.

Data on Capacity and Fishing Activity in the Baltic was provided as requested by the data call from logbook information. It was ensured that vessels do not count twice to get a realistic overview on fleet capacity. The full time series is covered.

4.3.4.5 Latvia

Latvian data were submitted on time and in accordance with required format. Fishing fleet capacity data for active vessels operated in the Baltic Sea were provided for 2013 only and appended to the previous time series. Registration number of boat was included in the coastal logbooks since 2008. Therefore, detailed data such as number of active vessels aggregated by area for boats less than 10 m which operated in the coastal fishing zone can only be provided from 2008 and afterwards.

4.3.4.6 Lithuania

Data submitted for 2009 - 2013 compose of 38 records in total.

No comments.

4.3.4.7 Poland

Data submitted for 2013 compose of 31 records in total. Data are consistent across years.

4.3.4.8 Sweden

Fisheries capacity data was submitted in the required format for the data year 2013 and has previously been provided for the years 2003-2012 for the Baltic Sea and for the years 2009-2012 for all other

areas. Data includes vessels <8m LOA. Days at sea were calculated according to the DCF definition, i.e. continuous 24-hours periods absent from port.

4.3.5 Data availability Table E spatial landings 2003-2013

Table 4.3.5.1 Overview of the spatial landings data submission for the 2014 Fishing Effort Regimes data call. In bold the dates when spatial landings data where submitted after the official submission deadline (3th of May).

Country	Data Submission	First Submission (Deadline 14-May)	Last Submission
BEL	DCF website	09 May	09 May
DEU	DCF website	14-May	14-May
DNK	DCF website	14-May	14-May
ESP	DCF website	**02-June**	**03-June**
EST	DCF website	**05-June**	**05-June**
FIN	DCF website	14-May	14-May
FRA	DCF website	**25-May**	**25-May**
GBR	DCF website	**05-Jun**	**05-Jun**
GBR SCO	DCF website	13-May	13-May
IRL	DCF website	12-May	13-May
LTU	DCF website	13-May	13-May
LVA	DCF website	10-May	10-May
NLD	DCF website	14-May	14-May
POL	DCF website	14-May	14-May
PTR	DCF website	14-May	**17-June**
SWE	DCF website	13-May	14-May

4.3.5.1 Belgium

A total number of 7502 records were submitted for 2013. No update for previous year's data was needed. There were a few records with missing mesh size information for gear types such as trammels, dredges and gillnets. Moreover, many records regard species that are not listed in the official data call, like BLL, RJN, RJM, RJC and RJH. The only special condition reported for 2013 data was SBCIIIart5. This year, all officially recorded species by the Belgian authorities were provided. However, it should be noted that the sum of all provided landings do not match the total Belgian landings as there are a minority of species landed and recorded as e.g. "other demersal" or "other crustacean" which are not provided to the EGW 14-13.

Belgium provided fleet specific landings data for 2003-2013 derived from official logbook databases for all vessels ≥10 meters. The data covers all areas in which the Belgian fleets are active and conform to the requested aggregation, by quarter, area, gear and mesh sizes.

The species provided are: anglerfish, bib, brill, brown shrimp, cod, conger eel, cuttlefish, dab, dogfish, edible crab, flounder, great scallop, grey gurnard, haddock, hake, horse mackerel, lemon sole, ling, mackerel, megrim, Nephrops, octopus, plaice, pollack, red gurnard, saithe, sea bass, skates and rays, sole, spurdog, squid, striped mullet, tub gurnard, turbot, whelk, whitch flounder, whiting and wolffish.

As Belgium does not have trip-by-trip information on the true mesh size for its fleets for 2003-2006, Belgium (as well as other countries) agreed to assume certain mesh sizes for its beam trawler fleets. Beamers operating in the Bay of Biscay (VIIIa,b) were assumed to use a 70-79 mm mesh size as this is the minimum legal mesh size in that area for beamers. For the North Sea, the trips were split according to the rectangles reported in the logbooks, and mesh sizes were allocated in line with Council Regulation (EC) N° 2056/2001. This regulation stipulates that beam trawlers are prohibited to use less than 120 mm in ICES Division IV to the north of 56° 00' N. Therefore all beam trawl information from this part of ICES Division IV was accounted against an assumed >120mm mesh size. The same regulation also stipulates that within the rectangle with coordinates along the east coast of the UK between 55° 00' N and 56° 00' N and the points 55° 00' N – 05° 00' E and 56° 00' N – 05° 00' E, beam trawlers can use 100 to 119 mm mesh size. Here also it was assumed that the mesh size used by the Belgian Beam trawl fleet was 100-119 mm. For the rest of ICES Division IV (the southern part) a mesh size of 80-89 mm was assumed for the beam trawlers. Apart from these assumed mesh size which are based on rectangle information from logbooks, it was also assumed that the shrimp fishery used a mesh size of 16-31 mm. The mesh size of the beam trawl fleets in the other area's was assumed to be 80-89 mm. Since 2007 mesh sizes used by beam trawls operating in different areas have been based on the true mesh sizes used on each trip.

The Belgian gear categories are: beam, dredge, gill, longline, otter, and trammel. For trammel nets, no assumptions of mesh sizes were made. The only specific condition reported for 2013 data was SBCIIIart5 for all Belgian vessels operating in areas 8a and 8b.

Belgium did not provide any information for vessels under 10m.

4.3.5.2 Denmark

Danish data were submitted on time, and with the requested information for all tables. Last year, Denmark had proceeded to a major revision and had resubmitted the whole time series 2003-2012. Therefore, no revision of older data was made this year, and only 2013 data were provided according to the same procedures.

The extraction procedures are fully compatible with the RDB FishFrame database, in order to get a unique raising procedure for all Danish catch information (discards and age-based information), thus improving the consistency of data reported to the various forums within e.g. ICES and STECF. As such, data raised in FishFrame are used for the STECF Effort data call. Where the categories in the FishFrame format and the STECF Effort format are not the same, the data are scaled according to the landings.

All records (34982 rows in Table E) passed the Data Submission filters, and only a very small proportion of the reported Danish fisheries activities have missing information.

The Danish 2013 submission still does not cover the special conditions BACOMA or T90 in the Baltic, as these are not compulsory to report in logbooks according to control regulations 1224/2009 and 404/2011.

More details on the Danish data are given under section effort data.

4.3.5.3 Estonia

A number of 1588 records were submitted for 2013. No updates for previous year's data. There were many records with inconsistent mesh size ranges.

STECF EWG 13-13 notes that the mesh sizes are inconsistent with the data call for vessels <12 m.

4.3.5.4 Finland

A number of 2321 records were submitted for 2013. No updates for previous year's data

4.3.5.5 France

A total number of 70541 records were submitted and fitted in the system for 2013. No updates for previous years' data. Landings data by rectangle have been only submitted since 2011 and are available only from 2011 to 2013. No landings data by rectangle is available for 2003-2010. There were a few records with missing area information for vessels less than 10 meters as well as a few records with missing statistical rectangle information (data is available for the ICES division but not at this level of aggregation) or rectangle information not available in the reference's table (ex. 100B0 or 84I2) which have not been taken into account. As for the others tables, some records for area 3a were as well not taken into account because of the non-distinction between 3as and 3an. No mesh size was reported for pots records. Some inconsistent "gear*mesh size*area*specon" combination were observed, notably the combination "pots*mesh size:-1". Only data regarding gears that are requested in the official data call have been submitted and as a consequence records regarding gears not requested are missing.

The specific conditions Cpart11, Cpart13B, IIB72ab, DEEP and SBcIIIart5 have been provided for eligible vessels and fisheries for 2013 as last year for 2012. The data were not updated for 2009-2011 on this specific issue.

As in previous years, records for specific condition DEEP and records for specific area BSA are double counted.

France provided landings data by rectangle for 2011-2013 derived from official logbook databases for all registered vessels 10m and over and from monthly declarative forms (contain declarative monthly data on fishing effort and catches per species by dates, locations and gears) for all registered vessels under 10m (logbooks are not mandatory for these vessels but they are covered by these monthly declarative forms). The data covers all areas requested in the data call and conform to the requested aggregation, by quarter, area, gear and mesh sizes.

4.3.5.6 Germany

A number of 9542 records were submitted for 2013. There were some records with missing gear information as well as some records for pots, dem_seines, gills, otters without any mesh size reported.

Germany aggregated the landings from logbook information as requested by ICES statistical rectangles and covers the full time series. No complete data on the spatial distribution of landings could be provided for vessels <10m in the North Sea and <8m in the Baltic as for these vessels it is not mandatory to provide detailed logbook information. Description on special conditions from part A and B also apply to part E. Some records did not pass the Data Submission filters when some information on e.g. gear, mesh size was missing, but these records represent only a very small proportion of the reported German fisheries activities. They are related to fishing operations with gears for which no code is available in the STECF data call.

4.3.5.7 Ireland

A total of 296299 records were submitted for 2003 - 2013. There were some records with missing gear information as well as some records for pots, dredges, gills without any mesh size reported.

Ireland provided landings by ICES statistical rectangle for the period 2003-2013 in the requested aggregation format, derived from the national logbook database (IFIS) for vessels ≥10m in length and monthly landing reports for under 10m vessels. For vessels ≥10m landings were calculated by summing live weights reported within the logbook operations as declared landings are not available at the level of statistical rectangle. To ensure consistency between datasets, the same base operational logbooks data was used as for the aggregation of declared landings within the Landings database (A). The following special condition information was supplied: none, CPart13a, CPart13b, CPart13c, CPart13d, CPart11 and DEEP. Specon DEEP is a duplication of effort within the relevant areas. Under 10m landings were assumed to originate from the ICES rectangle in which the landing port was located when within the same ICES division as reported landings. Where the port and landing ICES division differed, the nearest ICES rectangle to the port of the reported ICES division was assigned.

Area misreporting has been accounted for between ICES areas VIIg and VIIa for cod, haddock and whiting where the fishery straddles the ICES boundary of these two areas. It was not possible to account for any Nephrops misreporting relating to the porcupine bank fishing ground, believed to happen since 2011.

It was not possible to accurately aggregate data to the level of EU, coast, and RFMO. Data was assigned according to the following: Where an EU category existed within an area, all data from that area was categorised as EU, with the exception of ICES division X assumed to be RFMO. Those ICES divisions without an EU category where assumed as 1 coast and 2 coast.

4.3.5.8 Latvia

Latvian data were submitted on time and in accordance with required format. Fleet specific landings data by ICES statistical rectangle were provided for 2013 only and appended to the previous time series.

4.3.5.9 Lithuania

A number of 351 records were submitted for 2013. No updates for previous year's data.

No comments.

4.3.5.10 The Netherlands

The Netherlands only provided landings by rectangle data for 2013. No updates for previous years were submitted. The data was provided in the requested format using the official logbook data for vessels < 10 m, >= 10 <=15 m and >15 m.

All records (7240 rows in Table E) passed the Data Submission filters.

4.3.5.11 Poland

A number of 9311 records were submitted for 2011-2013. No mesh size range information reported for all vessels under 8 meters, partly missing mesh size information for other length groups for a relatively low amount of catches (3.2% excluding longlines). Specific condition information based on assumption that all ">=105 " mesh size is a BACOMA one, however according to a 2012 trial investigation about 35 demersal trawl vessels used T90 trawls as well. So the assumption should be treated with caution.

4.3.5.12 Portugal

Portugal provided landings by species and by rectangle for the period 2003-2013 for vessels ≥ 10 meters with the aggregation requested by the data call, based on logbook data. Data for the ICES areas 6b, 7k, 8c, 8d, 8e, 9a, 9b, 10, 12 and 14, as well as for the CECAF areas were provided.

4.3.5.13 Spain

Data provided in 2014:

In June of 2014 Spain provided spatial landings data from 2013 by quarter, vessel length range, gear, mesh size range and metier (fishery). In the cases where there was not mesh size data the 100-119 category was introduced in the mobile gears and 100-119 in the passive gears. Mesh sizes in longline were deleted. Landings were provided for BSA; ICES Subareas 1, 2, 10 and 12; ICES Divisions 6a, 6b,7a, 7b, 7c, 7d, 7e, 7g, 7h, 7j, 7k, 8a, 8b, 8c, 8d, 8e, 9a, 9b, 14a and 14b and CECAF Divisions 34.1.1, 34.1.2, 34.1.3 and 34.2.0. Landings were divided by COAST/EU/RFMO zones where appropriate. RFMO or null in area 34.1.1 (Moroccan coast) was substituted by COAST. Empty 34.1.2 (Canary Islands, Spain) was filled with EU. Empty or EU in 34.1.3 (coast of several North African countries) were substituted by COAST. Empty 34.2.0 were filled with RFMO. Empty 7ck, 8d and 9b were filled by EU. Deep trips were duplicated, once using special condition DEEP and again using special condition NONE, as requested by the data call. In ICES Divisions 8c and 9a there were not special condition (IIB72ab) landings (Hake Plan) because no vessel in 2012 and 2013 has applied for that condition in relation to hake and *Nephrops* recovery plan (Annex IIB of R(EU) No 43/2012 and No 39/2013). Landings were not divided in either Cod or Sole Plan special conditions owing to lack of time. Landings were provided for 84 of the 125 species of the 2014 data call (the other 41 do not appear in our fisheries). Data about European pilchard and "other species" (new categories in the 2014 data call species list) have been provided.

No information about vessels under 10 meters was provided since data source was logbooks, but Annex IIB (Hake Recovery Plan in 8c & 9a), which is the main Plan for Spain, does not deal with vessels under 10 meters.

Spain did not resend spatial landings data previous to 2013.

4.3.5.14 Sweden

Landings data by rectangle has previously been submitted in the required format for the years 2003-2012, including landings by vessels <10m LOA. This year, data for 2013 was submitted and the years 2009-2012 were updated, due to previous error in the Swedish *Pandalus* catches.

Landings were derived from the logbook data base.

4.3.5.15 United Kingdom

England, Wales and Northern Ireland: As a fully revised time series (2003-2012) was provided in 2013, and after checks to make sure revisions were not required to earlier years, only data for 2013 was submitted in response to the data call. A number of records were identified with missing mesh sizes – these were treated as follows depending on the nature of the fishing gear in question following the same practice as in earlier years. For mobile fishing gears where this occurred the activity was re-coded as mesh size "<16". Dredge trawls accounted for over 99.9% of the landings involved in such instances. While the amount of landings using dredge gear involved was significant, the fact that it was Dredge gear rather than one of the gears regulated under the effort regimes using mesh size means that there is no impact of this recoding on the conclusions drawn from the data. For passive gears activity reported with a missing mesh size was re-coded as mesh size "10-30". Only Gill nets were involved in such instances with the total level of landings involved being around 0.02% of total landings using Gill Nets in 2013. As such there is no impact of this recoding on the conclusions drawn from the data submitted for activity in 2013 and 53,941 rows of data were submitted for activity in 2013. Some records were submitted with both area BSA and special condition DEEP and were ignored in the analysis. Special conditions reported were DEEP, CPart11, CPart13a,b,c,d, FDFIIA and FDFIIC.

Scotland: A total of 30368 records were submitted for 2013. There were some records with missing gear information as well as some records for otters, trammels, dem_seines and gills without any mesh size reported.

Specific conditions reported were DEEP (2003-2008), DEEP and CPart13A, CPart13B, CPart13C, CPart13D (2009) and DEEP, FDFIIA, CPart11 and CPart13A, CPart13B, CPart13C, CPart13D (2010-2012).

4.3.6 Fisheries specific landing and effort data 2003-2013 of small boats (< 8m or <10m)

This STECF EWG 14-13 report provides an overview of landings and effort data provided by the experts regarding their national fisheries of small vessels<8m or <10m, which are not obliged to report their landings through logbooks but rather do landings declarations.

Previously, information on small vessels has been provided in the reports only as a series of individual country reports describing activities and landings. In this report individual country information is again provided where available. An attempt is also made to compile available information for each area into overall figures. Since not all countries were able to fulfil this part of the data call, the aggregate estimates for each region of the cod recovery zone must be considered as minimum estimates. Nevertheless, they begin to give an idea of the scale of landings contributed by these

smaller classes of vessel and can be used to comment on the likely relative importance compared with the regulated vessels.

Member States' data submissions for small boats are summarized in the previous sections by data table A-E, sections 4.3.1-5, respectively.

4.4 Estimation of fisheries specific international landings and discards

The estimation of fisheries specific international landings and discards is based on linking the information about fisheries specific discards and catch and discards at age among countries and replacing poor or lacking values with aggregated information from other countries.

Reported data by country are aggregated by fisheries properties and raised to the officially reported landings or discards in the format stipulated in the annual DCF fishing effort data calls. A similar format had been designed by ICES SGDFF 2004 (ICES 2004) format. Fisheries definitions are based on area, year, quarter, gear, mesh size groups, special conditions as defined in Council Reg. 41/2007 Annexes IIA-C and 57/2011 Annexes IIA-C or the multiannual management plans, and national fisheries (metiers) definitions.

The data aggregation and estimation procedures follow the simple raising strategies outlined below:

- Data aggregation:

  The national fisheries data (row specific records in the data submissions from Member States) are classified to their management areas or sub-areas, species, years, quarters and effort regulated gear groups by disregarding the country and national fishery definitions (metiers).

- Estimation of discard rates by fisheries and raising of discard for non-sampled fisheries:

  Let the following notation be: D=discards, L= landings, *snf* = national fishery with a discard value from 0 to X, *unf* = non-sampled fishery without a discard value.

  The available landings and discards are aggregated (summed) over fisheries (by species, year, quarter, effort regulated area, effort regulated gear, special condition) and mean discard rates DR are calculated:

$$DR = \frac{\sum_{snf} D_{snf}}{\sum_{snf} (L_{snf} + D_{snf})} \qquad \text{if } D_{snf} \geq 0 \text{ and with } L_{snf} + D_{snf} > 0$$

  Fisheries specific discard amounts are then calculated if no discard information is available by

$$D_{unf} = \frac{L_{unf}.DR}{(1 - DR)} \qquad \text{where } D_{unf} \text{ is null (empty)}$$

  Fisheries without any discard information, i.e. no average DR could be estimated, remain without any discard estimation as no quantitative information is available.

- Estimation (raising) of landings in numbers and mean weight at age for non or poorly sampled national fleets

  A poorly sampled fishery is defined as such if the Sum of Products SOP derived from numbers at age landed times weight at age is as follows

  $$SOP_{snf} < 0.75 \text{ or } SOP_{snf} > 1.25$$

  Data of landings in numbers at age and their weight at age of poorly sampled fisheries are replaced with -1, meaning no information available.

  Let *i* be the age reference.

  Landings in numbers ($N_{snf,i}$) and mean weight at age ($W_{snf,i}$) are aggregated (summed for $N_{snf,i}$ and averaged for $W_{snf,i}$) over all sampled fisheries when $SOP_{snf} \geq 0.75$ and $SOP_{snf} \leq 1.25$.

  Raising of numbers at age and respective fill in of mean weights at ages 0-11 to un- or poorly sampled fisheries is performed by

  $$N_{unf,i} = \frac{\sum_{snf}(N_{snf,i}).L_{unf}}{\sum_{snf} L_{snf}}$$

  $$W_{unf,i} = mean(W_{snf,i})$$

  The mean weights are non-weighted and an appropriate weighing procedure, e.g. number of fish measured, should be explored.

  Fisheries for which no summed landings in numbers at age information and mean weights at ages could be estimated remain non-raised, i.e. without any quantitative information.

- Estimation (raising) of discards in numbers and mean weight at age for non or poor sampled fleets

  A poorly sampled fishery is defined as such if the Sum of Products SOP derived from numbers at age discarded times weight at age is as follows

  $$SOP_{snf} < 0.75 \text{ or } SOP_{snf} > 1.25$$

  Data of discards in numbers at age and their weight at age of poorly sampled fisheries are replaced with -1, meaning no information available.

  Let *i* be the age reference.

  Discards in numbers ($N_{snf,i}$) and mean weight at age ($W_{snf,i}$) are aggregated (summed for $N_{snf,i}$ and averaged for $W_{snf,i}$) over all sampled fisheries when $SOP_{snf} \geq 0.75$ and $SOP_{snf} \leq 1.25$.

Raising of numbers at age and respective fill in of mean weights at ages 0-11 to un- or poorly sampled fisheries is performed by

$$N_{unf,i} = \frac{\sum_{snf}(N_{snf,i}).D_{unf}}{\sum_{snf} D_{snf}}$$

$$W_{unf,i} = mean(W_{snf,i})$$

The mean weights are non-weighted and an appropriate weighing procedure, e.g. number of fish measured, should be explored.

Fisheries for which no summed discards in numbers at age information and mean weights at ages could be estimated remain non-raised, i.e. without any quantitative information.

- Estimation of catch and catch at age in numbers including discards

  Catches by fisheries are estimated as the sum of landings and discards, also where discards are lacking.

  Catches at ages 0-11 in numbers by fisheries are estimated as the sum of landings at age in numbers and discards at age in numbers, also where discards are lacking.

  Mean weights at ages 0-11 are estimated at weighted means (according to ratios of landings at age and discards at age to catches at age, respectively).

  Finally, all fisheries' catches and catches at ages in numbers and mean weights are aggregated (summed or averaged, as appropriate) over management areas, species, years, effort regulated gear groups and special conditions.

It needs to be realised that fisheries for which no aggregated information on discards or landings in numbers at age and discards in numbers at age is available from other countries remain non-raised. STECF EWG 14-13 concludes that these non-raised fisheries may need to be subject to a specific raising procedure if total catch and catch in numbers is to be estimated and if the individual non-raised fisheries constitute significant catches.

The EWG 14-13 notes that sampling of catch at sea including discards is expensive and difficult. This means that sampling coverage tends to be rather limited, and estimates of discards are subject to high uncertainty. This is true of all the discard data used here, and in some cases the discard estimates presented represent the first attempt to use the discard data from some fisheries in an advisory context. Where the coverage is considered adequate to estimate the overall catch compositions of specific fleets these are presented, but they are intended only to provide an approximate indication of fleet catch compositions. In cases where there are little data, the estimated discard rates may be biased and imprecise (Stratoudakis *et al.*, 1999). The mean weights are estimated as unweighted means. This results in a biased estimate. An appropriate weighing procedure, i.e. number of fish measured, should be explored.

EWG 14-13 further notes that the approach of discard estimation applied is generally consistent with the method used in the discard estimates published by the FAO (Kelleher, 2004). However, the group also notes that the design of a discard sampling scheme might differ depending on whether the objective was to estimate total discards, or discard for specific fleets. In the current context estimates from sampling schemes designed for the former purpose are being used for the latter purpose which again means the estimates should only be used with caution. Where this is the case, comparisons are

made between the estimates of total discards used for assessment purposes, and the fleet-specific estimates used here.

STECF EWG 14-13 notes that the estimation of fisheries specific international landings and discards was devised in relation to the cod recovery plan (Reg (EC) 423-2004) and has remained unchanged. Subsequent to the first assessments of effort regimes areas covered by different management plans have been added to the remit of the EWG and the combination of data fields used to identify fleet segments for 'fill-ins' of discard information can be inappropriate (too highly aggregated) when used for these areas (Iberian peninsula). Problems have also been identified when gears unregulated by the effort management regime take a significant proportion of the catch of species of greatest concern in the area (Western Channel). STECF EWG 14-13 considers that revised methodology for estimation of international discards should be considered for some of the fishing effort regimes.

4.5 Coverage Index of Discard Estimates DQI

STECF EWG 14-13 noted the high emphasis on discard estimates for scientific, advisory and management purposes. STECF EWG 14-13 notes that the scientific resources to monitor discards by fisheries are limited and thus best use of the scarce national information requires a defined raising procedure. Furthermore, STECF EWG 14-13 also notes that it has developed and applied a consistent approach to estimate discards by fisheries (Member State, species, year, quarter, area, gear, special condition) as described in the previous section 4.4. The available landings and discard quantities have been provided by Member States in accordance with the DCF data calls to support fishing effort regime evaluations. The provisions of the DCF data call invite the Member State to estimate its discards applying best practices and to omit the submission of an estimate if the discard sampling is considered inadequate or best practices cannot be applied. STECF EWG 14-13 estimates discards by fisheries based on reported landings quantities by applying an average discard rate if a Member State has not provided a discard estimate.

In order to allow an assessment of the representativeness of the discard estimates by species and fisheries, STECF EWG 13-13 developed a coverage index. The discard coverage index is called DQI and values will be available in the report and electronic appendixes provided on the website of the second meeting (STECF EWG 14-13).

STECF EWG 14-13 notes that the DQI does not support precise conclusions on data quality based on scientific criteria but rather aims to classify the available information and is therefore fully dependent on correctness of the submitted national landings and discards estimates.

The index represents the sum of landings with discard estimates by species and fishery (species, year, area, gear, special condition) in relation to the total sum of landings in the given segment. It is estimated as

$$DQI = \Sigma L_d / \Sigma L$$

where L denotes landings (t) and L_d landings with a discard estimate.

In order to facilitate the interpretation of the DQI value, the DQI is classified in three groups. The groups are defined as

- A = 67 % or more of the provided landings are with an accompanying discard estimate,
- B = 34-66 % of the provided landings are with an accompanying discard estimate, and
- C = less than 33 % of the provided landings are with an accompanying discard estimate.

It should be noted again that this discard coverage index cannot inform on the quality of the discard rate estimates supplied by nations (as affected for example by the proportion of fishing trips sampled for discards).

STECF EWG 14-13 advises the C qualified discard estimates not to be used as the majority of the reported landings lack a discard estimate.

4.6 Treatment of CPUE data

CPUE by regulated gears is presented in units of g/(kW*days). Where discard estimates are not available, the trends in LPUE (landings per unit of effort) are given in the same units. EWG 14-13 is already aware that discard information continues to be sparse or absent for some categories of gear in some areas. **The STECF EWG wishes to stress again that great care should be used in the interpretation of the discard and resulting catch data owing to the incomplete nature of information on discarded fish.**

EWG 14-13 notes that CPUE series are often interpreted and used as stock abundance indicators. However, EWG 14-13 emphasises that the presented trends in CPUE by fleets are subject to selective fishing strategies (area, gear, mesh size etc.) and thus may be biased. On the other hand, CPUE derived from targeted fisheries may provide very useful information on stock abundance trends. Furthermore, it must be taken into consideration that the majority of the CPUE trends represent only overall weights in the landings (LPUE) without discards or with poorly estimated discards. Ideally, the CPUE should be based on age disaggregated abundance rather than overall weights and reflect technological creep when trends over longer periods are evaluated.

4.7 Ranking of gears on the basis of contribution to catches

Where required, STECF EWG 14-13 presented the ranked contributions of the individual effort regulated gears to cod, plaice and sole catches for the years 2003 to 2013. There was discussion about whether the ranking should be based on the most recent year or an average for a range of years (which allows for any aberrations in the series). As presented, rankings are according to catch estimates or landings in 2013.

The catch estimates are based on the sums of the landings and discards where available. EWG 14-13 considers the catch estimates as uncertain where fisheries lack discard estimates or they are poorly sampled. **STECF EWG 14-13 wishes to stress again that great care should be used in the interpretation of the discard and resulting catch data owing to the incomplete nature of information on discarded fish.**

4.8 Summary of effort and landings by 'unregulated' gears

In the summary tables of effort a total value for a 'none' category is provided. This 'none' category represents

i) gear types and mesh sizes which are unregulated, i.e. non-regulated by effort in addition to

ii) unidentified mesh sizes. In the main effort summary tables, this category is not broken down into its constituent gears.

iii) the so-called derogation Swedish grid, (which was encoded as IIA83b) and CPart11, respectively. These gear configurations are explicitly exempted from the effort regime (R (EC) No 754/2009).

However, STECF EWG 14-13 has provided a breakdown of the main gears within the 'none' category in a dedicated subsection for each area. Information is given on effort (kW*days at sea) for gears such as 'beam', otter, pots, dredges etc. STECF EWG 14-13 will provide catches by these gears of key species (e.g. cod, plaice and sole). This analysis helps to identify which gears contribute significantly to landings of these species but which are not currently regulated.

With the adoption of the revised cod recovery plan towards the end of 2008 and the simplified list of regulated gears for which data are now collated, the compilation of the unregulated categories was more straightforward from 2009 onward and the data appear to be reliable.

It is important in making use of the data in this report, that the 'none' material is not counted more than once. It would be preferable to use data from the sections covering unregulated gears.

4.9 Presentation of spatial information on effective effort and landings

STECF EWG 14-13 notes that minimum geographic resolution in the available logbook information on landings and effective effort is by ICES rectangle and considers analyses to be only possible at that resolution at the present time. In a number of the smaller areas, however, this resolution is inadequate for describing any localised changes of effort distribution (for example, in the Kattegat) and information on a finer scale is desirable. Increasing availability of VMS data should provide opportunities for improved resolution in due course. STECF EWG 14-13 notes that only major changes in the geographical distribution patterns should be given attention given the imprecision of the created data set. A full set of figures is available electronically but a selection of key gears is included in this report.

Figures use a common scale across years for a given gear group (e.g. TR1) but scales are unique to each category such that for example the colours assigned to statistical rectangles for category TR1 cannot be compared directly to those assigned for category TR2. Note that this year the scale used in the plots relates to the actual effort values (rather than the percentile method used in previous years).

4.10 Response of EWG 14-13 regarding the estimation of spatio-temporal patterns in catchability

In 2013 STECF EWG 13-13 adopted the definition of catchability (q) as the relationship between the catch rate (CPUE) and the true population size. Consequently, the unit of catchability is fish caught per fish available per effort unit and per time unit, or, in easier words, catchability can conceptually be considered as the probability of any single fish being caught (Jul-Larsen *et al*., 2003).

STECF EWG 14-13 notes that many factors are related to catchability, e.g. fish abundance at a certain time in a certain area and gear efficiency (fishing power) including use of the gear and fishers' experience (Marchal *et al*., 2001). A standard solution to evaluate changes in catchability is therefore to compare catch rates from commercial and research fishing where the catchability of the research fishing remains constant from year to year (Neis *et al*.,1999):

CPUE (fishery)/CPUE (survey) = q (fishery)/q (survey)

This catchability index has no units, as it represents the ratio of fish caught per fish available per effort unit and per time unit. The calculation of catchability indices for cod per ICES statistical square (rectangle) and year is derived from standardized and averaged ratios between CPUE by fishery and CPUE based on survey indices.

The estimation of catches by rectangle is derived from a raising procedure applied to landings data by stock, nation, fishery (effort regulated gear groups), year, quarter and rectangle to estimate discards. National landings by stock, fishery, year, quarter and rectangle were raised by average national discards rates obtained by stock, fishery, year and quarter without rectangle:

$$C_{stock, nation, fishery, year, rectangle} = \Sigma \left(L_{stock, nation, fishery, year, rectangle} / (1 - DR_{stock, nation, fishery, year})\right),$$

where C denotes the catch in weight (t), L denotes the landings in weight (t), and DR denotes a specific average discard rate based on the DCF data submissions of landings and discards. Where the discard rate is unknown, landings figures were accepted as a best estimate of catches.

Average national commercial catch rates by stock, fishery, year and rectangle were then estimated from

$$CPUE_{stock, nation, fishery, year, rectangle} = C_{stock, nation, fishery, year, rectangle} / E_{stock, nation, fishery, year, rectangle},$$

where CPUE denotes the catch rates, C the estimated catch in weight (t) and E the fishing effort in units of fished hours.

The catchability index CA per stock, year and rectangle is then derived from the ratio between the averaged commercial CPUE values by stock, nation, fishery, year and rectangle, each of them divided by the CPUE from the respective average scientific survey CPUE in units of weight (kg). Both catch rate estimates, the commercial and the scientific ones, were made subject to log transformation in order to reduce the high variation between years and rectangles.

$$CA_{stock, year, rectangle} = \Sigma_n \left(\ln (1+CPUE_{stock, nation, fishery, year, rectangle}) / \ln(1+CPUE_{stock, survey, year, rectangle})\right) / n,$$

where n is the number of nation-fleet combinations.

4.11 Amendments of the 2014 DCF data calls to support fishing effort regime evaluations

STECF EWG 14-13 noted that no amendments were deemed necessary to the 2014 DCF data call. Therefore no re-submissions of data were required and only took place if a member state needed to correct data submitted in previous years.

5 EVALUATIONS BY FISHING EFFORT MANAGEMENT REGIME

5.1 Baltic Sea effort regime evaluation in the context of the management plan for Baltic cod (Council Regulation (EC) No 1098/2007)

5.1.1 ToR 1.a Fishing effort in kWdays and GTdays by area, Member State and fisheries

Table 5.1.1.1 lists the trends in effort for gear categories defined in the cod management plan Council Regulation (EC) 1098/2007 in kW*days at sea for the whole Baltic. Table 5.1.1.2 lists the trends in effort by gear category and area for regulated gears. Table 5.1.1.3 lists relative annual effort dynamics in Baltic cod r-GILL and r- OTTER fisheries in 2004-2013 by gear category and area.

Figures 5.1.1.1 – 5.1.1.6 show effort trends in regulated and unregulated gear categories by areas.

In accordance with the ToR respective tables by gear-category, area and Member States in GT*days at sea (GT gross tonnage), activity (in days absent from port) and capacity (number of vessels) are available on the web site of the EWG. STECF EWG 14-06 emphasize that the days at sea and number of vessels need to be interpreted with care and cannot be added across gear categories as the individual vessels may have been engaged in more than one of the defined fleets and thus could be multiple counted.

There have been marked reductions in effort measured in kW-days in 2004-2012 both for regulated gears in accordance with Council Regulation (EC) 1097/2007 and unregulated gears. The total effort deployed in the Baltic in 2013was 41% lower compared to 2004 but 25% higher compared with 2012(Table 5.1.1.1).

A clear reduction in total effort could be observed for area A until 2010. Since then the total effort stabilized. The effort dynamics in main regulated gear types show contrasting trends in 2011-2013: the effort of regulated pelagic trawls decreases and that of regulated demersal seine increased while regulated otter trawl effort remained unchanged (Figures 5.1.1.1.-5.1.1.2). Figures 5.1.1.3 and 5.1.1.4 display the trends in area B. The overall effort of regulated gears has increased since 2010 slightly due to increase in r-otter effort. The effort of non-regulated gears decreased from 2011 substantially. In area C the effort deployed with unregulated gears shows clear decreasing trend since 2010 (Figure 5.1.1.5). Since the majority of cod catches stem from areas A and B (see section below), the slight increase in total effort can be observed both for regulated and unregulated gears. Table 5.1.1.3 describes the relative annual effort dynamics in Baltic cod r-GILL and r-OTTER fisheries in 2004-2013. The total effort showed a consistent decreasing trend in area A until 2011. A decrease could be observed also in area B, however until 2010 only. In 2011-2013 an increase in effort followed, driven mostly by otter trawl effort. The effort dynamics in area C did not show any particular trend. In 2011-2013 however, a substantial increase in effort was observed both in gillnet and otter trawl effort (Table 5.1.1.3).

The effort in ICES Sub-division 28.2 decreased in 2012 after the increase in 2011 both in the regulated gillnet and otter trawl fisheries (Figure 5.1.1.7). Effort levels returned to close to the 2011 value in 2013 because of increases in regulated otter trawl and pelagic trawl (Figure 5.1.1.8).

The decrease in total effort for the main gears catching cod in areas A and B (regulated otter) was obvious for all Member States (Table 5.1.1.4). When combining BACOMA and none, the reductions were most pronounced for Denmark (-62%) and Germany (-57%) in area A, and most pronounced for Poland (-70%) and Sweden (-44%) in area B. In contrast, the effort for r-Gill (the second most important gear) increased for Denmark and Germany in area A (by 5% and 4% respectively). At the

same time combined effort for r-Gill decreased in area B for Denmark by 74% and for Latvia (-88%) and for Poland (-77%). This indicates a certain shift between métiers.

In area B the effort increased from 2011 to 2012 in r- otter trawl fishery- in Germany by 67%, Poland by 49% and in Lithuania by 20%. In 2012-2013 the German effort decreased again by 47% but Poland and Lithuania showed further increases of 6 and 2 %, respectively.

The regulated gill nets´ effort decreased substantially in all Member States. The sharp increase of pelagic effort in 2004–2005, described in the Figure 5.1.1.5 can be explained by the inclusion of Estonian data set from 2005-2010, showing substantial pelagic effort.

In Sub-division 28.2 only Latvia reported the information on effort deployed in regulated GILL fishery. The effort has decreased over the period of 2004-2013 by 66% and for regulated otter-trawls by 65% (Figures 5.1.1.7 - 5.1.1.8).

For area C the full time series of information for regulated otter trawls was not available to the group. The effort for regulated gill nets decreased by 17% in 2004-2013. At the same time the increase in effort by 27% was observed from 2011 to 2013 (Sweden). The use of BACOMA-trawls increased over the years (see Figures 5.1.1.2, 5.1.1.4 and 5.1.1.6). However, as already mentioned several Member States were not able to identify vessels fishing with BACOMA-trawls from logbook data. Therefore, the increase in the usage of BACOMA-trawls is most likely underestimated substantially and trends are highly uncertain.

Table 5.1.1.1 Trend in nominal effort (kW*days at sea) by gear categories according to Council Regulation (EC) 1098/2007, 2004-2013. An "r" in front of the gear type indicates regulated gears. Gear types without an "r" are non-regulated gears. Data from Sweden and Poland were only available from 2003 or 2004 respectively. Relative change from 2004-2007 to 2013 and from 2012 to 2013.

REG GEAR COD	SPECON	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	rel 04-07	rel 2012
BEAM	NONE		132	1090	881	27566	16298	884	884	368			
DEM_SEINE	NONE	50829	31212	20892	20597	12522	5337	5031	12266	882	3284	-0.89	2.72
DREDGE	NONE	78384	72955	97700	110931	45088	48712	65364	56203	91968	129775	0.44	0.41
GILL	NONE	2514485	2781351	2465917	2293892	2019216	1862392	1922682	1906426	775303	2795002	0.11	2.61
NONE	NONE	72855	143013	173077	148369	115922	79044	84697	68084	47093	654547	3.87	12.90
OTTER	NONE	2870433	2450721	1971668	1672218	1353484	1477623	1197194	1101870	973442	890976	-0.60	-0.08
PEL_SEINE	NONE	2499				3528	16467	13674	12645	27163	13915	4.57	-0.49
PEL_TRAWL	NONE	15552840	62133235	45906681	39463937	43240579	40031349	29616128	26579447	8216408	12260947	-0.70	0.49
POTS	NONE	1519123	1616616	1346062	1211896	1209985	883458	1035858	919071	379577	1312448	-0.08	2.46
R-BEAM	BACOMA					3867							
	NONE							129					
R-DEM_SEINE	BACOMA			35178	46741	46182	62042	36621	52390	29641			
	NONE	404467	277118	262991	243984	181854	122508	95833	62941	113731	81042	-0.73	-0.29
R-GILL	NONE	9883237	8720856	7812598	6689205	6010468	4751522	4123605	3777836	3975573	3609193	-0.56	-0.09
R-LONGLINE	NONE	1441251	1762927	1696057	1007443	732605	901565	816726	792860	572124	550403	-0.63	-0.04
R-OTTER	BACOMA	8077219	6708057	8744572	6593542	5519745	4073745	4223497	3584428	3535393	1763597	-0.77	-0.50
	NONE	5997614	6125856	3554966	2555771	2427194	2099090	2103909	3342583	4089663	4663853	0.02	0.14
	T90						9536	160701	276747	195488	364552		0.86
R-PEL_TRAWL	BACOMA	1185898	577852	1689966	1636710	854557	349455	199507	936461	181573	52481	-0.96	-0.71
	NONE	249065	219359	119545	37349	3887	27748	12921	27136	19629	36497	-0.77	0.86
R-TRAMMEL	NONE	237634	474368	432884	502123	539744	564008	445131	418462	487356	480822	0.17	-0.01
TRAMMEL	NONE	20495	31581	32540	31788	25870	11054	11927	10883	5265	8004	-0.72	0.52
Grand total		**50158328**	**94127209**	**76364384**	**64267377**	**64373863**	**57392953**	**46172019**	**43939623**	**23717640**	**29671338**	**-0.58**	**0.25**

Table 5.1.1.2. Trend in nominal effort (kW*days at sea) by regulated gear categories and area 2003-2013. An "r" in front of the gear type indicates regulated gears in accordance with Council Regulation (EC) 1098/2007. Data from Sweden and Poland were only available from 2003 and 2004 respectively.

Annex	REG AREA COD	REG GEAR COD	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Bal	28.2	R-DEM_SEINE	1534	804					4091	3967		3273	2172
Bal	28.2	R-GILL	128458	38171	62083	52887	52229	16129	15303	23211	17613	10418	13101
Bal	28.2	R-OTTER	44642	88489	84119	64123	60310	34048	19735	4865	36969	23786	31143
Bal	28.2	R-PEL_TRAWL	882		6850	5500	1100		2860				9066
Sum	28.2		**175516**	**127464**	**153052**	**122510**	**113639**	**50177**	**41989**	**32043**	**54582**	**37477**	**55482**
Bal	A	R-BEAM	442					3867		129			
Bal	A	R-DEM_SEINE	367804	401961	265914	276632	277345	220254	160744	101579	68761	91495	78870
Bal	A	R-GILL	2136791	2202578	3605681	3464031	3182556	3025722	2353090	2043431	1929540	1887253	1834013
Bal	A	R-LONGLINE	176508	230860	555892	409225	300403	166043	205986	160958	175618	204547	195867
Bal	A	R-OTTER	5286832	4961432	5171790	4124965	4367256	3537808	2807271	2362321	2450277	2475071	2252869
Bal	A	R-PEL_TRAWL	30931	20233	67882	50463	40983	6994	2744	11521	8247	2319	161
Bal	A	R-TRAMMEL	247947	227298	467533	424155	487260	528888	546918	441372	416361	484318	464915
Sum	A		**8247255**	**8044362**	**10134692**	**8749471**	**8655803**	**7489576**	**6076753**	**5121311**	**5048804**	**5145003**	**4826695**
Bal	B	R-DEM_SEINE	729	1702	11204	21537	13380	7782	19715	26908	46570	48604	
Bal	B	R-GILL	3516915	7551967	4959662	4199675	3379807	2902885	2320231	1983437	1772316	2003874	1688043
Bal	B	R-LONGLINE	555385	1210391	1207035	1286832	707040	566482	695579	655768	617242	367577	293343
Bal	B	R-OTTER	4232302	9024912	7573972	8104996	4718919	4368681	3355365	4120921	4716512	5321587	4504393
Bal	B	R-PEL_TRAWL	73507	1414730	722479	1753548	1631976	851450	371599	200907	955350	198883	78871
Bal	B	R-TRAMMEL	12374	10336	6835	8464	14863	10856	17090	3759	2101	3038	15907
Sum	B		**8391212**	**19214038**	**14481187**	**15375052**	**10465985**	**8708136**	**6779579**	**6991700**	**8110091**	**7943563**	**6580557**
Bal	C	R-GILL	88826	90521	93430	96005	74613	65732	62898	73526	58367	74028	74036
Bal	C	R-LONGLINE	992					80		0			61193
Bal	C	R-OTTER			4032	5454	2828	6402				100	3597
Bal	C	R-PEL_TRAWL											880
Bal	C	R-TRAMMEL				265							
Sum	C		**89818**	**90521**	**97462**	**101724**	**77441**	**72214**	**62898**	**73526**	**58367**	**74128**	**139706**
Sum	BC		**8481030**	**19304559**	**14578649**	**15476776**	**10543426**	**8780350**	**6842477**	**7065226**	**8168458**	**8017691**	**6720263**

Table 5.1.1.3. Relative annual effort dynamics in Baltic cod r-GILL and r- OTTER fisheries in 2004-2013.

REG GEAR COD	REG AREA COD	SPECON	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012	2012/2013
R-GILL	28.2	NONE	0.63	-0.15	-0.01	-0.69	-0.05	0.52	-0.24	-0.41	0.26
	A	NONE	0.64	-0.04	-0.08	-0.05	-0.22	-0.13	-0.06	-0.02	-0.03
	B	NONE	-0.34	-0.15	-0.20	-0.14	-0.20	-0.15	-0.11	0.13	-0.16
	C	NONE	0.03	0.03	-0.22	-0.12	-0.04	0.17	-0.21	0.27	0.00
R-OTTER	28.2	BACOMA	-0.05	-0.24	-0.06	-0.44	-0.42	-0.75	6.60	-0.36	0.31
	A	BACOMA	0.58	2.49	0.23	-0.27	-0.25	-0.14	0.03	-0.10	-0.84
		NONE	0.00	-0.54	-0.11	-0.08	-0.16	-0.19	0.03	0.12	0.50
		T90							0.83	-0.10	0.38
	B	BACOMA	-0.21	0.10	-0.39	-0.09	-0.27	0.14	-0.23	0.04	-0.36
		NONE	0.09	-0.05	-0.53	0.03	-0.07	0.41	1.29	0.28	-0.04
		T90						13.51	0.70	-0.33	0.97
	C	BACOMA									
		NONE		0.35	-0.48	0.50					0.00
		T90									
All regulated gears	28.2		0.20	-0.20	-0.07	-0.56	-0.16	-0.24	0.70	-0.31	0.48
All regulated gears	A		0.26	-0.14	-0.01	-0.13	-0.19	-0.16	-0.01	0.02	-0.06
All regulated gears	B		-0.25	0.06	-0.32	-0.17	-0.22	0.03	0.16	-0.02	-0.17
All regulated gears	C		0.08	0.04	-0.24	-0.07	-0.13	0.17	-0.21	0.27	0.88

Table 5.1.1.4 Trend in nominal effort (kW*days at sea) by regulated gear categories according to Council Regulation (EC) 1098/2007, area and Member State for 2004-2013. Data from Estonia were only available from 2005 and from Finland from 2013.

REG AREA COD	REG GEAR COD	COUNTRY	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
28.2	R-DEM_SEINE	LAT	804					4091	3967		3273	2172
	R-GILL	EST			166							
		LAT	38171	62083	52721	52229	16129	15303	23211	17613	10418	13101
	R-OTTER	EST			221	221						
		LAT	88489	84119	63902	60089	34048	19735	4865	36969	23786	31143
	R-PEL_TRAWL	LAT		6850	5500	1100		2860				8646
		POL										420
A	R-BEAM	DEN							129			
		GER					3867					
	R-DEM_SEINE	DEN	394563	264002	253210	239604	181854	118417	91866	54972	89731	78870
		GER	7398	1912	23422	37741	38400	42327	9713	13789	1764	
	R-GILL	DEN	540757	1245235	993868	804366	872897	723711	610449	593694	597244	567492
		EST		40887	57436	19041	39051	41349				
		GER	662527	1135980	1449940	1457215	1247682	932027	893907	809150	771580	690023
		LAT	142491	171002	161456	30116	12676	3528	11604	6174	2940	43917
		LIT		19111	32901							
		POL	236261	331555	199045	325354	228173	135263	84558	81024	126904	128374
		SWE	620542	661911	569385	546464	625243	517212	442913	439498	388585	404207
	R-LONGLINE	DEN	86314	164621	202815	126714	32557	33817	42527	46243	56902	59144
		GER	80543	122727	119348	100892	97335	122409	74286	62880	58865	62332
		LIT		12533	0							
		POL	17962	143615	46306	53736	21615	6391	4502	6118	7932	8678
		SWE	46041	112396	40756	19061	14536	43369	39643	60377	80848	65713
	R-OTTER	DEN	2814169	2879424	2035587	1812121	1669672	1415553	1145919	1077878	1182374	1070256
		EST		4199					4248		2650	
		GER	1753928	1686831	1481387	1491775	1207722	1028646	933844	964057	932751	758924
		LAT		17632		18488			7920			
		LIT		57602	84342							
		POL	172618	310416	185144	618979	315079	172795	114560	101350	146051	195742
		SWE	220717	215686	338505	425893	345335	190277	155830	306992	211245	227947
	R-PEL_TRAWL	DEN	11156	14346	24308	6246	2831	2744	7621	561	322	161
		EST		662		1269						
		GER	3975	17039	20699	30856	3443		3740	5756	1607	
		LIT		16799	0							
		POL	2220	16612	1258	2612			160			
		SWE	2882	2424	4198		720			1930	390	
	R-TRAMMEL	DEN	176833	368285	311401	309684	349896	317238	301565	271304	335772	318336
		GER	21308	40549	67494	132416	128657	134669	77750	106349	104519	91729
		SWE	29157	58699	45260	45160	50335	95011	62057	38708	44027	54850
B	R-DEM_SEINE	DEN	880	11204	9781	4380				7936	20727	
		GER	822		11756	9000	7782	19715	26908	38601	27877	
		POL								33		
	R-GILL	DEN	247793	288548	255355	190114	195224	170484	133853	129032	109307	65640
		EST		287824	253368	128268	40036	31107				
		GER	8290	43704	14527	11824	5048	6594				
		LAT	1471236	701180	596996	568781	539579	401856	361015	350477	273839	174692
		LIT		93187	55397	90686	128949	107267	104170	78123	48511	54538
		POL	4339027	2361250	1992875	1556930	1079645	791231	788566	695263	1121302	1007639
		SWE	1485621	1183969	1031157	833204	914404	811692	595833	519421	450915	385534
	R-LONGLINE	DEN	112769	154482	157371	86736	45320	63169	76826	76881	41313	42754
		GER	11771	15007	9881	11920	17580	12580	6600	2420		3304
		LIT		264	59543	35332	34991	6664	3956	5514		1694
		POL	712715	691955	738832	410561	270046	412292	391897	324267	187100	167926
		SWE	373136	345327	321205	162491	198545	200874	176489	208160	139164	77665
	R-OTTER	DEN	891009	993201	1279055	585792	644737	629248	781262	1071791	1160176	867098
		EST		94896	5729	9503			96642	179832	79178	39820
		GER	211999	280977	163096	80177	191198	220844	276398	108001	180536	95531
		LAT	322019	242532	350925	186093	229860	198632	218426	473943	376406	252057
		LIT		342503	192759	170844	382050	286887	332848	398109	477440	486675
		POL	5657875	3902889	4457610	2534977	1715576	1018609	1245924	1064287	1582454	1676202
		SWE	1942010	1716974	1655822	1151533	1205260	1001145	1169421	1420549	1465397	1087010
	R-PEL_TRAWL	DEN	51827	44286	94797	31103	1056	4030	3536	5080	3750	
		EST		214426	355398	702922	703021	219177	114680	714754	86256	15410
		GER	182107	143688	141492	70379	16691	36135	61303	128870	48484	1547
		LAT	114489	4122	29965	122803	10521	14473			18648	19467
		LIT		1100	89918	85447	61407	20974	1764	4420	6837	4081
		POL	921668	193724	628134	440888	21895	36317	3424	2428	14087	28122
		SWE	144639	121133	413844	178434	36859	40493	16200	99798	20821	10244
	R-TRAMMEL	DEN	2167	5598	7550	12631	5910	15546	3693	1185	546	384
		SWE	8169	1237	914	2232	4946	1544	66	916	2492	15523
C	R-GILL	EST		166	166							
		POL									573	265
		SWE	90521	93264	95839	74613	65732	62898	73526	58367	73455	73771
	R-LONGLINE	FIN										61193
		SWE					80		0			
	R-OTTER	EST		3628	5454	2828	4242					
		POL									100	100
		SWE		404			2160					3497
	R-PEL_TRAWL	EST										880
	R-TRAMMEL	SWE			265							

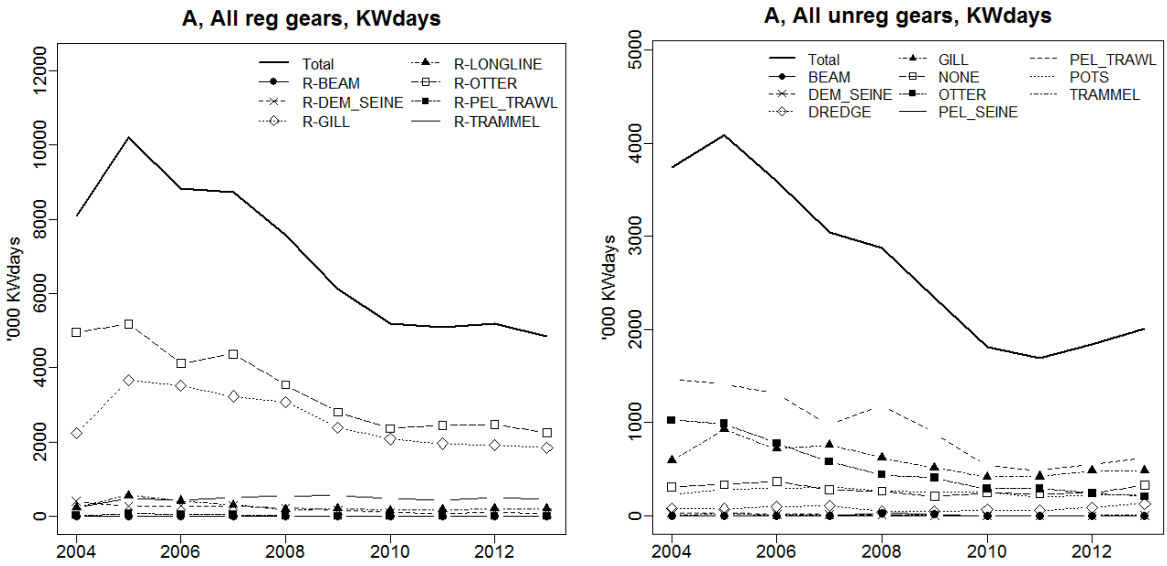


Figure 5.1.1.1. Area A Baltic: Trend in nominal effort by gear types 2004-2013 (kW*days at sea). Left panel: Regulated gears. Right panel: Unregulated gears. Note that data from Poland, Latvia and Lithuania are only available from 2004 and from Estonian from 2005 onwards. Therefore, effort trends are shown from 2004 to 2013. No data from Finland.

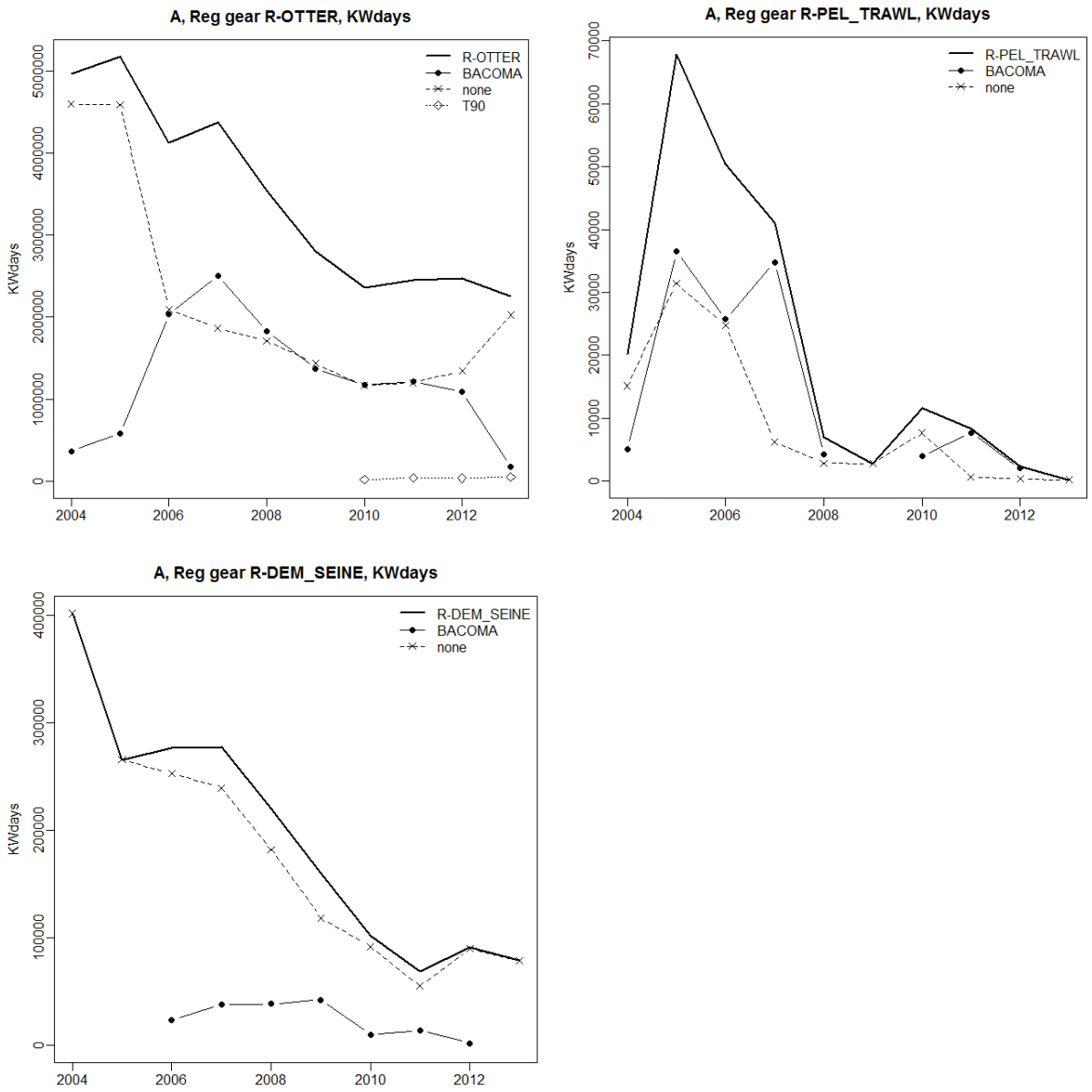


Figure 5.1.1.2. Area A Baltic: Trend in nominal by special conditions, 2004-2013 (kW *days at sea). Note that data from Poland, Latvia and Lithuania are only available from 2004 and from Estonia from 2005 onwards. Therefore, effort trends are shown from 2004 to 2013. No data from Finland.

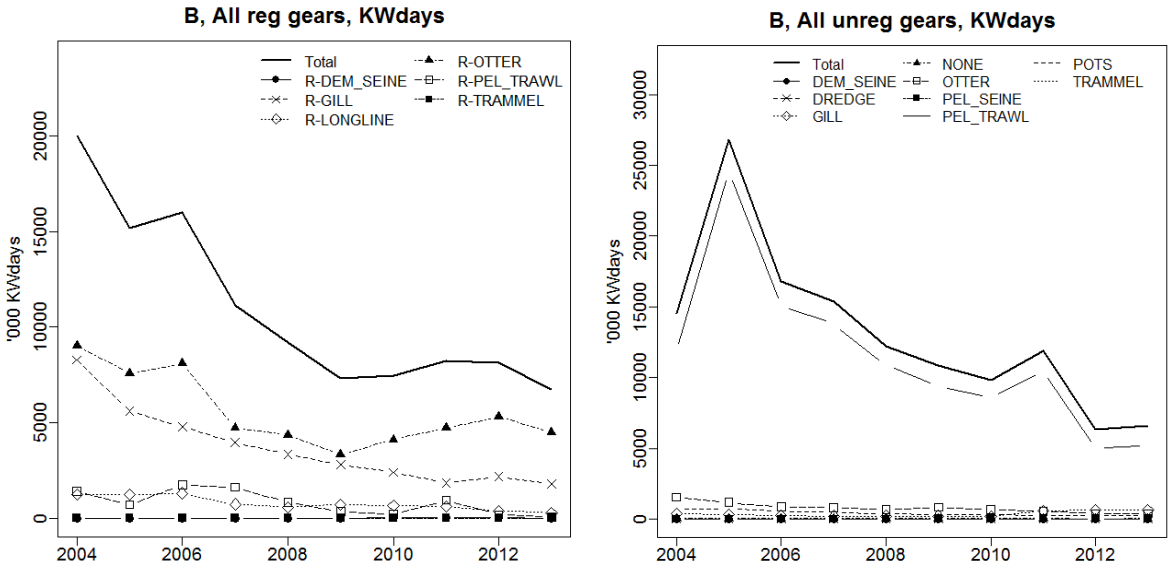


Figure 5.1.1.3. Area B, Baltic: Trend in nominal effort by gear types 2004-2013 (kW *days at sea). Left: Regulated gears. Right: Unregulated gears. Note that data from Poland, Latvia and Lithuania are only available from 2004 and from Estonia from 2005 onwards. Therefore, effort trends are shown from 2004 to 2013. No data from Finland.

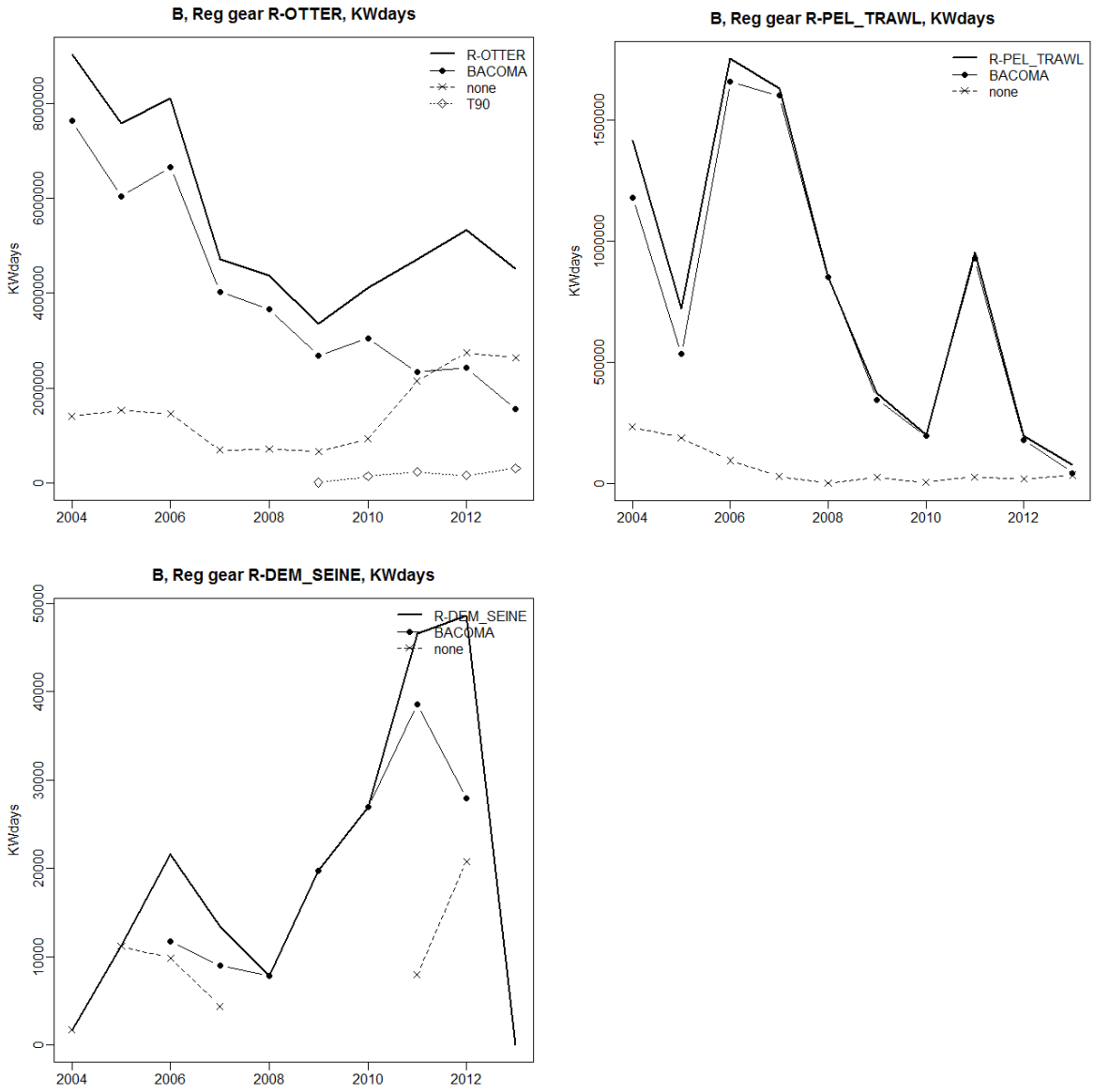


Figure 5.1.1.4. Area B Baltic: Trend in nominal effort by special conditions, 2004-2013 (kW *days at sea). Note that data from Poland, Latvia and Lithuania are only available from 2004 and from Estonia from 2005 onwards. Therefore, effort trends are shown from 2004 to 2013. Note that data from Finland is only for 2013 (long-lines).

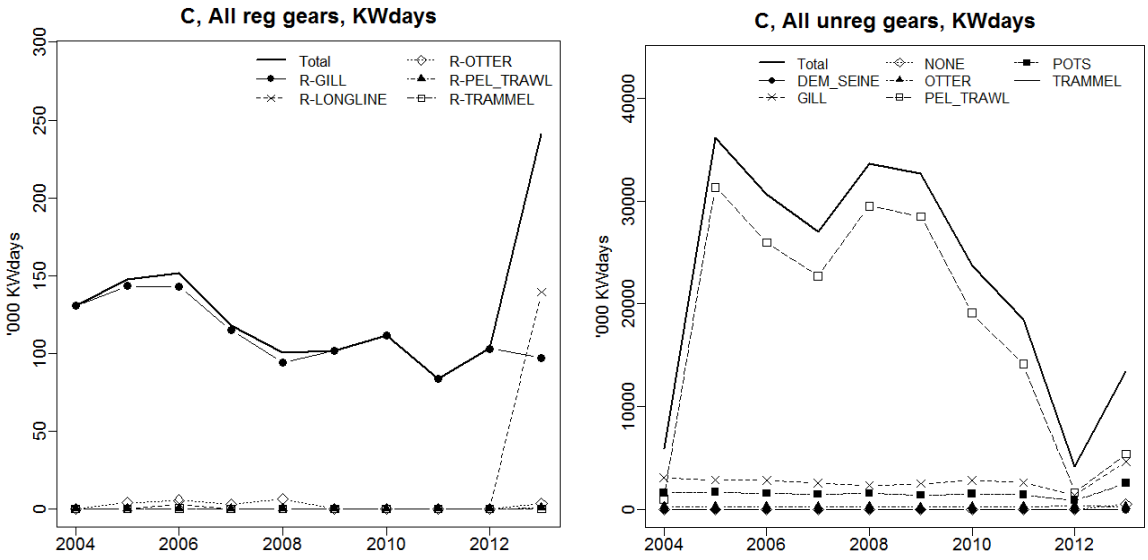


Figure 5.1.1.5. Area C Baltic: Trend in nominal effort by gear types 2004-2013 (kW *days at sea). Left: Regulated gears. Right: Unregulated gears. Note that data from Poland, Latvia and Lithuania are only available from 2004 onwards. Therefore, effort trends are shown from 2004 to 2013. Additionally, Estonian data from (including substantial pelagic effort) was included from 2005. Data from Finland is only for 2013 (r-longline).

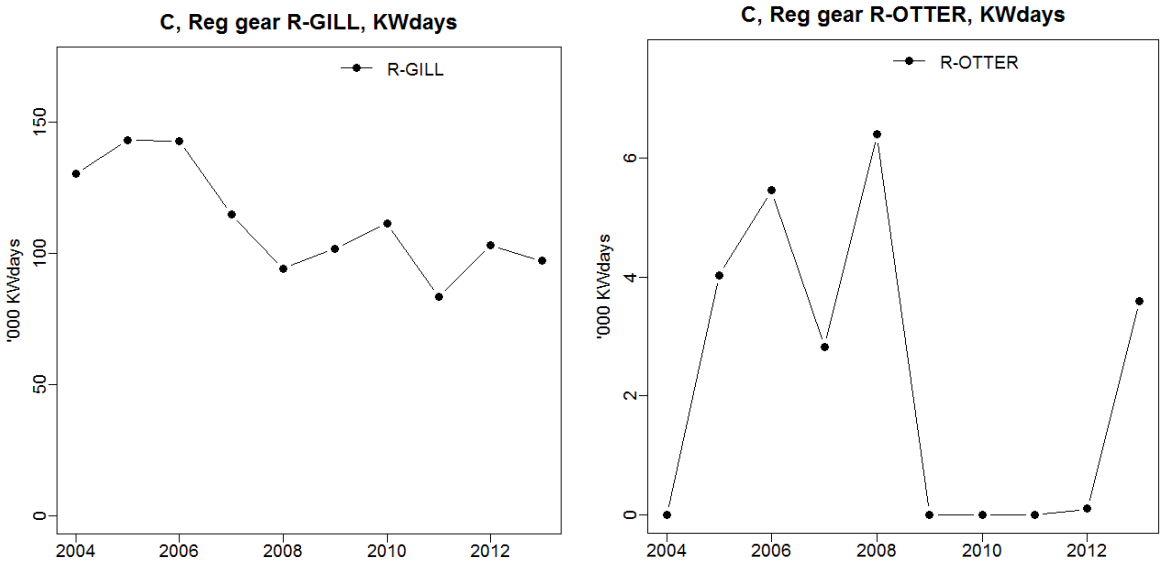


Figure 5.1.1.6. Area C Baltic: Trend in nominal effort by special conditions, 2004-2013 (kW *days at sea). Note that data from Poland, Latvia and Lithuania are only available from 2004 and from Estonia from 2005 onwards. Therefore, effort trends are shown from 2004 to 2013. No data from Finland.

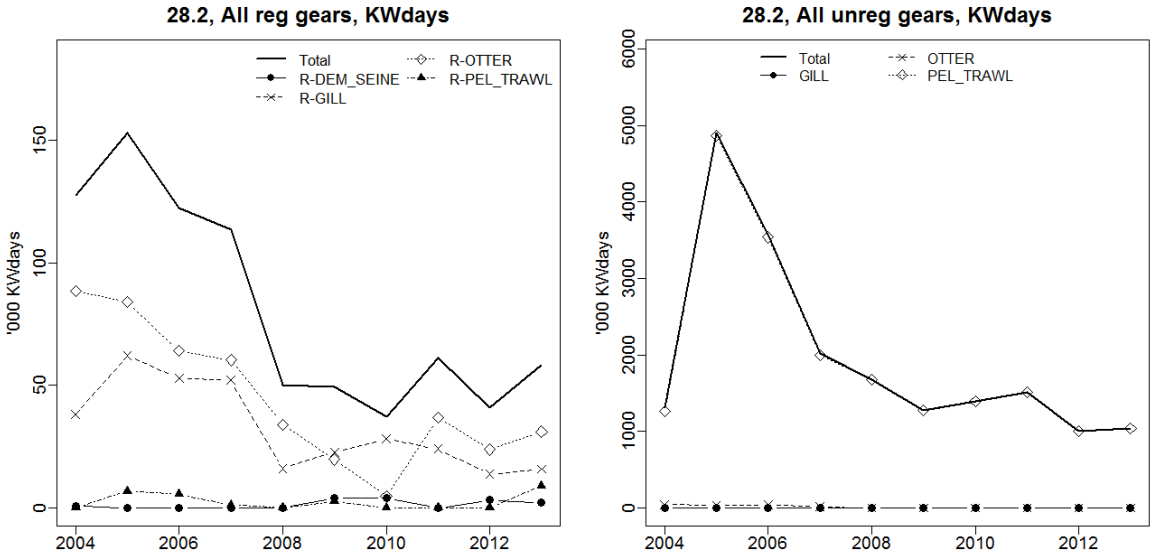


Figure 5.1.1.7. Sub-division 28.2. Baltic: Trend in nominal effort by gear types 2004-2013 (kW *days at sea). Left: Regulated gears. Right: Unregulated gears. Note that data from Poland, Latvia and Lithuania are only available from 2004 and from Estonia from 2005 onwards. Therefore, effort trends are shown from 2004 to 2013. No data from Finland.

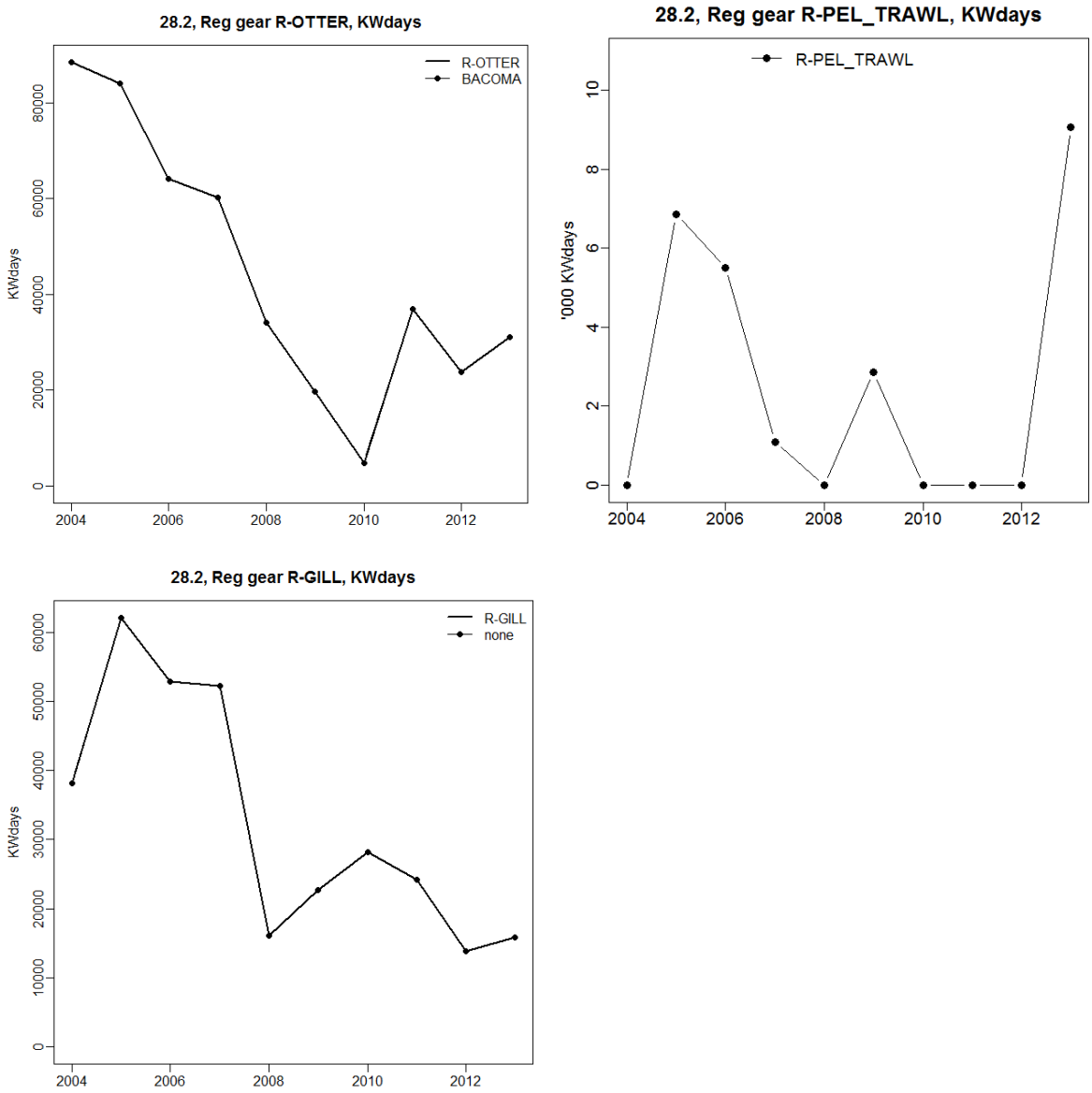


Figure 5.1.1.8. Sub-division 28.2. Baltic: Trend in nominal effort by special conditions, 2004-2013 (kW *days at sea). Note that data from Poland, Latvia and Lithuania are only available from 2004 and from Estonia from 2005 onwards. Therefore, effort trends are shown from 2004 to 2013. No data from Finland.

5.1.2 ToR 1.b Fishing activity and capacity by area, fisheries and Member State

Table 5.1.2.1 lists the estimated days at sea by area, main regulated gears (r-otter and r-gill) and Member State. The results show a clear decreasing trend over the areas A and B from total of 153,000 days at sea in 2004 to 76,000 days in 2013. In 2012 the overall number of days at sea increased again to 82,000 days, but decreased to 75,600 days in 2013. The total decrease in fishing activity has been mostly driven by the respective trend in area B only (from 104,000 to 41,000 days). The decreasing trend was observed both in regulated gillnets and otter-trawls. In Area A the fishing activity decreased in 2004-2010 and stabilised then at around 37,000- 38,000 days in 2010-2012. A new decrease to 34,000 days was observed in 2013. The figures presented in the table should be, however, taken

cautiously, since multi-fold counting may have taken place in cases where certain vessels may have deployed more than one specific regulated gear.

Uptake of days at sea against the available days at sea by Member State and area for regulated and non-regulated gear types in 2008-2013 is presented in the Section 5.1.7.

Tables 5.1.2.2- 5.1.2.3 present the sum of capacity declared by Member States in fisheries with all regulated and non-regulated gears, respectively in areas A, B and AB combined. Capacity used in regulated gears (all combined) shows a slight decreasing trend since 2004 in area A from 70,000 to 49,000 kW and in area B from 131,000 to 77,000 kW. The capacity in area B has increased slightly in 2011-2013. The capacity in fisheries with non-regulated gears has shown in general an increasing trend in area B from 84,800 to 112,800 kW. The capacity has remained virtually unchanged in area A at approximately 20,000 kW. The combined areas follow generally the trend of area A in both cases.

Table 5.1.2.1 Days at sea by area, two main regulated gear types (r- GILL and r-OTTER), and Member State in 2004-2013.

REG AREA COD	REG GEAR COD	COUNTRY	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
A	R-GILL	DEN	5661	15776	13324	11008	11983	9358	8284	7917	7813	7306.03
		EST		115	124	68	125	151				
		GER	7219	14201	22002	21213	17262	13418	11971	11310	11142	9837.22
		LAT	811	1044	997	145	47	12	48	21	10	256
		LIT										
		POL	3908	4173	2656	4062	2912	1914	1129	1106	1551	1862
		SWE	5329	5743	5015	4958	5547	4643	4057	3944	3331	3396
	R-OTTER	DEN	15836	16086	11915	9922	9264	8205	6945	6105	6535	5513.27
		EST		7					6		9	
		GER	9467	8771	8125	7952	6727	5677	5239	5317	5002	4053.67
		LAT		76		84			36			
		LIT										
		POL	748	1361	589	2374	1323	940	717	733	1120	1483
		SWE	705	589	807	960	728	415	331	691	498	553
Total A			**49684**	**67942**	**65554**	**62746**	**55918**	**44733**	**38763**	**37144**	**37011**	**34260.19**
B	R-GILL	DEN	1886	3243	2974	2320	2367	2050	1617	1676	1224	833
		EST		462	458	308	140	101				
		GER	50	361	82	58	24	50				
		LAT	9376	4413	3501	3306	3024	2447	2213	2140	1715	1107
		LIT						944	821	635	538	616
		POL	40916	25446	21835	17523	13910	11214	10733	10156	14991	15160
		SWE	15348	12125	10484	9220	10766	9395	6868	6188	5121	4652
	R-OTTER	DEN	4190	4775	5880	2790	2644	2749	3137	4145	4379	3493.83
		EST		100	26	43			171	281	313	181
		GER	644	996	625	282	775	1078	1365	485	666	442
		LAT	1421	1054	1546	797	1012	806	892	2005	1422	973
		LIT						1300	1508	1812	2202	1960
		POL	24902	15831	17179	10038	7031	4601	5562	5647	8628	9315
		SWE	5079	4262	4041	2640	2847	2539	2810	3427	3454	2631
Total B			**103812**	**73068**	**68631**	**49325**	**44540**	**39274**	**37697**	**38597**	**44653**	**41363.83**
Grand Total A+B			**153496**	**141010**	**134185**	**112071**	**100458**	**84007**	**76460**	**75741**	**81664**	**75624.02**

Table 5.1.2.2 Capacity (kW) used in fishery with all regulated gears by Member States for the vessels which have operated exclusively in areas A and B, and for the vessels which have operated in both areas AB in 2003-2013.

Area	Country	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
A	DEN	39372	43175	45001	43476	38362	36726	29239	23244	27155	22791	20485
A	GER	21694	20408	16838	23355	29831	25011	21326	20407	22620	20700	21148
A	POL		4758	3140	1996	3521	3918	2773	2140	1393	2192	1621
A	SWE	2125	1941	1754	709	401	6907	4548	5056	4576	5400	6020
B	DEN	5708	3546	2873	2794	772	2903	3243	3483	3784	2669	703
B	EST			12398	11373	9756	2848	2187	1526	3556	3288	1101
B	FIN											11025
B	GER	2324	441	1683	2512		1751	415	415	1015	1090	
B	LAT	14362	14155	7351	9174	9418	10109	9277	6949	6232	9079	7819
B	LIT							5817	5934	5928	6136	6903
B	POL		106054	72488	68652	48496	48937	32408	36825	27441	39225	35784
B	SWE	8732	7022	6132	3112	2725	21279	24316	20118	13456	13298	13668
AB	DEN	39563	30155	36403	34032	28987	21249	20960	18340	16562	18956	18258
AB	EST			1345	628	720	331	331	708		574	
AB	FIN		1511	1279	1279	1175	2073	3032	3618	3769	3882	7984
AB	GER	5823	9005	17117	11682	9867	10277	11728	11063	6671	6332	3885
AB	LAT	2642	4400	6777	4874	2628	569	515	1669	294	294	789
AB	POL		18224	37476	18132	32666	23206	12030	8182	7366	10277	12667
AB	SWE	355	254	412	25	18	21734	19732	15757	22602	22467	18612

Table 5.1.2.3 Capacity (kW) used in fishery with all non- regulated gears by Member States for the vessels which have operated exclusively in areas A and B, and for the vessels which have operated in both areas AB in 2003-2013

Area	Country	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
A	DEN	13322	17956	13014	13274	11585	11465	9848	10818	10765	11070	12909
A	GER	482	584	3369	1724	1807	2439	1809	1530	1280	1422	1301
A	POL		8695	7998	6926	6975	6189	6746	5652	5360	4840	4556
A	SWE	1266	852	1003	992	628	3471	3359	3304	2120	3251	3438
B	DEN	22372	13604	26789	28799	23018	22638	24044	20794	15442	8843	8253
B	EST						7630	7500	8287	8160	9652	6155
B	FIN											7981
B	GER	1646			973					1469	1469	1469
B	LAT	13083	9947	10743	10447	10093	11071	13084	9952	10445	8113	8058
B	LIT							2172	2914	2584	2291	2857
B	POL		57090	46654	33830	33050	34077	37030	37938	40018	36817	42222
B	SWE	4568	4144	3963	3724	3570	39135	46423	47996	39785	32791	35802
AB	DEN	2114	5225	4147	652	3010	1971	2274	2466	3947	2387	709
AB	EST										574	
AB	FIN											5236
AB	GER		1646	2619	685	1469	1469	2204	2204	735		
AB	LAT									353		
AB	LIT							1200	221	221		
AB	POL		14970	16429	10810	9655	12567	10995	4486	9771	9449	9721
AB	SWE	25	36	7	32	25	18597	14499	7424	9681	11601	11888

5.1.3 ToR 1.b Catches (landings and discards) of cod in weight and numbers at age by fisheries

The following tables list the landings and discards for cod by gear category, area and Member State (Table 5.1.3.1) as well as aggregated over Member States (Table 5.1.3.2). Discard rates per year, gear category, area and country can be found in Table 5.1.3.3. In addition, in Table 5.1.3.4 discard rates by areas, gear category and years are presented, while in Table 5.1.3.5 discard and landing data by age is listed. The information in the Table 5.1.3.5 is provided for the period of 2004-2012 only since the data

from 2013 was not available for the EWG 14-06/14-13. Age specific data for 2013 is available on the JRC website: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1413

Figures on landings and discards for the most important gear categories catching cod are provided in Figure 5.1.3.1. The data indicates a substantial decrease in landings and catches in both regulated gillnet and regulated otter trawl fisheries in the area B. The decrease was also observed in area A. This is in accordance with the most recent opinion of ICES on the Eastern Baltic cod stock that "the average SSB proxy in the last two years (2013–2014) was 46% lower than the SSB index in the three previous years (2010–2012)" (ICES, 2014).

The overall landings of Baltic cod in 2013 were 44,323 t or 35% lower compared to 2012 (ICES, 2014). Estimated discards fluctuate around low values without any trend over years. The quality of discard estimates has improved since the introduction of the EU Data Collection Programme; however the estimates should still be taken with caution.

Most cod landings stem from areas A and B. According to the available data area C plays only a marginal role in the present distribution pattern of cod landings in the Baltic (e.g. landings in 2013 in A+B = 44,252 tonnes; landings in area C = 71 tonnes, 0.2% of total).

Cod discard rates are higher in area B followed by area A, showing an increase in the most recent years for regulated otter trawls (Figure 5.1.3.1). This can be explained by the increase of the Eastern Baltic cod stock in 2006-2011 (ICES, 2012). For regulated gears the average discard rate in area B was 16% against 9% in area A in 2013 (Table 5.1.3.3). For area C only a very minor discard rate has been observed in the gillnet fishery. This probably reflects the distribution pattern of the cod stock. Average discard rates were higher for regulated otter trawls (up to 20%) and for regulated pelagic trawls – 22% in area B in 2013. The discards from the gillnet fishery generally remained below 10%. Discard rates between Member States are of comparable magnitude. Only in area B were the discard rates for r-Otter significantly higher for Sweden, Germany and Poland compared to the other countries in some years.

Table 5.1.3.1 Landings (t) and discards (t) for cod in 2004-2013 by gear category, area and Member State. An “r” in front of the gear type indicates regulated gears in accordance with Council Regulation (EC) 1098/2007. Gear types without an “r” are non-regulated gears. Data from Estonia are only available from 2005 onwards.

reg_area	reg_gear	specon	country	2004 L	2004 D	2005 L	2005 D	2006 L	2006 D	2007 L	2007 D	2008 L	2008 D	2009 L	2009 D	2010 L	2010 D	2011 L	2011 D	2012 L	2012 D	2013 L	2013 D
28.2	GILL	NONE	EST																	0.025		0.051	
28.2	PEL_TRAWL	NONE	EST															0.42				0.048	
28.2	POTS	NONE	EST																	0.02		0.001	
28.2	R-OTTER	BACOMA	EST							0.627													
28.2	GILL	NONE	LAT													0.002		0.007		0.47		0.2	
28.2	OTTER	NONE	LAT			0.03		0.187															
28.2	PEL_TRAWL	NONE	LAT	17.111		8.652		9.246		13.497		4.698				0.649		3.289		0.703		0.059	
28.2	R-GILL	NONE	LAT	73.617		151.251	3.671	89.968	1.428	101.768	7.395	39.315	1.22	38.718	0.114	37.329	0.026	35.774	0.3	32.713		50.141	
28.2	R-OTTER	BACOMA	LAT	173.254	0.501	195.468		167.766	0.5	93.045		56.74		121.131		11.963		40.606		114.053		50.194	
28.2	R-PEL_TRAWL	BACOMA	LAT																			72.405	
28.2	R-OTTER	BACOMA	LIT																	14.4		15.11	
A	DEM_SEINE	NONE	DEN	0	0.002	0.506		6.594		0.224													
A	DREDGE	NONE	DEN																				
A	GILL	NONE	DEN	58.368	0	216.124	24.25	123.358		116.573		20.832		12.082	0.003	6.852	0	6.808	0.057	2.105	0.029	1.865	0
A	NONE	NONE	DEN	2829.229		445.685		848.599	17.567	110.254		58.63		27.33		45.915	0	46.687		62.571		35.28	0
A	OTTER	NONE	DEN	76.884		124.267		124.871		50.67		22.681		24.293	0	8.241	15.491	9.031		6.705	0.328	1.849	
A	PEL_TRAWL	NONE	DEN	35.775	0.135	85.555		92.237		47.344		27.703		18.422	0	19.582	0	10.813	4.301	4.199	0.454	6.744	
A	POTS	NONE	DEN			278.262		86.364		180.035		66.384		60.392		86.831	0	48.753	0.973	42.803	0.754	41.262	184.265
A	R-DEM_SEINE	NONE	DEN	1369.436	171.036	1013.943		1391.601		1460.247		1267.765	10.105	601.496	47.854	481.093	85.135	388.043	41.812	437.903	8.74	513.205	178.91
A	R-GILL	NONE	DEN	1490.291	18.357	2935.391	145.392	2382.296	1.039	2177.17	0.876	1932.504	2.758	1447.492	77.737	1425.737	130.33	1516.197	0.09	1518.008	24.377	1299.392	31.503
A	R-LONGLINE	NONE	DEN	312.739	5.249	617.436	31.499	496.758		432.258	12.41	135.732		127.46	1.067	163.739	0	228.558	3.009	202.344	2.866	134.816	7.113
A	R-OTTER	NONE	DEN	7696.741	813.87	6866.227	1822.995	6674.728	633.834	7169.926	554.075	5708.069	485.783	5530.65	502.909	4542.831	963.199	5546.144	692.335	5875.519	292.793	4218.095	1310.223
A	R-PEL_TRAWL	NONE	DEN	17.172	2.461	40.729	10.401	102.066	9.7	19.19	1.493	7.719	0.664	23.821	2.164	36.408	6.339	0.096		0.568	0.022		
A	R-TRAMMEL	NONE	DEN	250.717	3.793	482.132	59.966	496.409		473.27		470.584	0.302	296.857	14	358.663	35.018	395.314	0.003	556.942	12.498	563.381	10.233
A	TRAMMEL	NONE	DEN	4.399		18.139		3.944		4.432		5.759		0.005		0.518		0.219		0.201		0.862	

A	R-GILL	NONE	EST			59.875	3.829	102.067	0.24	51.672	0.054	132.105	0.187	194.397	8.147								
A	R-OTTER	BACOMA	EST			1.46	0.016									0.38	0.039			3.207	0.248		
A	R-PEL_TRAWL	BACOMA	EST			1.17	0.015			9.872													
A	NONE	NONE	FIN																			285.336	0
A	BEAM	NONE	GER													2.012		2.584					
A	GILL	NONE	GER	0.153	0	22.097	0.857	21.406		17.317		4.442		0.632	0	2.595	0	0.238	0.003	0.82	0.014	0.65	0
A	NONE	NONE	GER	3.232		18.222		34.149	0.99	9.442		3.169		2.879									
A	OTTER	NONE	GER	21.306		76.895		60.183		39.123		57.33		32.655	0	22.102	33.873	52.473		8.33	0	10.56	
A	PEL_TRAWL	NONE	GER	26.102	0.21	64.964		83.459		49.678		46.671		16.824	0	16.891	0	6.092	2.237	3	0.227	1.92	
A	POTS	NONE	GER	2.172		0.12		1.91		0.039		0.778		3.711		13.668	0	3.958	0.082	3.31	0.053	7.66	19.121
A	R-BEAM	BACOMA	GER									9.28											
A	R-BEAM	NONE	GER																				
A	R-DEM_SEINE	BACOMA	GER					51.384		142.862		250.269		194.136		51.437		70.916		4.45			
A	R-DEM_SEINE	NONE	GER	5.944	0.857	37.25																	
A	R-GILL	NONE	GER	623.758	13.332	1140.444	48.276	1743.911	0.344	1698.892	0.377	1533.785	0.889	873.706	87.801	1173.752	40.013	863.585	29.373	1030.48	15.878	874.88	23.315
A	R-LONGLINE	NONE	GER	24.023	0.543	59.323	3.592	32.111		20.331	0.427	19.769		13.287	0.328	32.246	0	27.022	0.507	14.31	0.187	15	6.33
A	R-OTTER	BACOMA	GER					4944.346	333.153	4941.107	318.695	3155.074	230.779	2622.668	299.973	2556.011	567.166	3133.063	411.349	3028.04	170.449		
A	R-OTTER	NONE	GER	3684.842	440.396	4669.955	1207.411	22.368	2.011	8.85	0.699	18.203	1.514	4.28	0.402	0.715	0.155	16.903	1.486	0.7	0.034	2028.06	411.231
A	R-PEL_TRAWL	BACOMA	GER					75.651	0.425	186.993		4.751	0.11			12.91		12.617	3.939	5.49			
A	R-PEL_TRAWL	NONE	GER	11.132	2.161	35.281	6.467	0.024	0.002														
A	R-TRAMMEL	NONE	GER	1.791	0.027	15.922	1.344	29.499		88.219		96.028	0.103	60.742	7.548	42.158	3.498	77.387	0.187	103.3	2.53	80.55	3.225
A	TRAMMEL	NONE	GER			2.77		1.517		2.885		1.498		0.285				0.017					
A	PEL_TRAWL	NONE	LAT							10.768				0.295	0								
A	R-GILL	NONE	LAT	246.586	2.365	405.708	21.143	579.865	0.644	89.703	0.02	29.666	0	22.715	1.135	71.248	4.098	23.685	0.586	11.464	0.128	128.433	2.021
A	R-OTTER	BACOMA	LAT			57.284	0.202	0.853	0.05	172.839	14.099					86.728	11.054						
A	R-LONGLINE	NONE	LIT			7.57	0.424																
A	R-OTTER	NONE	LIT			128.88	28.161	42.38	4.624														
A	R-PEL_TRAWL	NONE	LIT			10.242	2.218																
A	DEM_SEINE	NONE	POL	0.006	0					0.009													
A	GILL	NONE	POL	8.501	0	1.447	0.266	0.988		4.893		3.478		0.586	0	0.029	0			0.343	0.007	7.698	0

A	OTTER	NONE	POL	3.5		3.251		0.638		0.6		0.054						7.064		0.005	0	0.249	
A	PEL_TRAWL	NONE	POL	10.216	0.103	34.57		39.759		9.48		15.599		0.497	0.011	1.292	0	1.168	0.505	0.844	0.259		
A	POTS	NONE	POL	0.247				1.17															
A	R-GILL	NONE	POL	315.567	8.918	448.56	18.689	435.688	0.22	884.261	0.486	640.509	0.062	265.676	36.395	167.572	8.142	224.843	3.718	403.494	8.768	361.285	12.094
A	R-LONGLINE	NONE	POL	32.912	1.112	257.505	13.624	128.411		265.219	1.328	77.798		10.404	0.147	12.827	0	19.502	0.341	28.519	0.367	18.066	1.17
A	R-OTTER	BACOMA	POL	129.162	12.324	309.473	0.644	176.729	15.481	1181.868	79.5	611.186	39.494	237.7	21.088	126.832	12.301	223.577	48.639				
A	R-OTTER	NONE	POL															6.87	0.959	386.041	31.998	331.674	79.836
A	R-PEL_TRAWL	BACOMA	POL			26.56	0.126	1.551	0.045	2.866													
A	TRAMMEL	NONE	POL	0.003																			
A	GILL	NONE	SWE	0.013	0	0.551	0.031	0.419		0.603		0.065		0.564	0.009	0.835	0	1.84	0.018	1.285	0.019	0.783	0
A	NONE	NONE	SWE	0.84		22.717		7.04	0.029	35.179		15.055		6.023		16.651	0						
A	OTTER	NONE	SWE	0.91		0.06		0.975		0.45				0.05	0.005					1.349	0.039	0.015	
A	PEL_TRAWL	NONE	SWE	60.38	0.512	70.934		53.235		30.863		26.802		22.893	0.029	27.99	0	24.968	9.262	2.731	0.537	2.925	
A	POTS	NONE	SWE	2.833		3.249		3.571		6.017		1.132		0.248		1.778	0	4.096	0.083	4.03	0.04	2.822	9.488
A	R-GILL	NONE	SWE	1217.235	17.988	1151.004	45.964	1062.941	0.275	1152.775	0.805	1244.681	2.384	946.215	39.522	816.929	17.212	870.209	14.532	873.389	11.431	658.386	15.778
A	R-LONGLINE	NONE	SWE	113.103	2.524	203.576	7.067	99.562		54.234	0.159	57.512		156.608	0.122	106.995	0	166.625	2.184	231.077	3.741	256.241	8.2
A	R-OTTER	BACOMA	SWE	755.192	39.682	634.358	2.2	1216.623	60.401	1524.801	131.691	1255.531	50.713	879.204	91.186	429.466	44.707	1240.762	541.589	984.41	161.259	573.094	58.25
A	R-OTTER	NONE	SWE													18.757	1.639						
A	R-OTTER	T90	SWE													44.805	4.304	149.196	64.834	172.84	39.223	118.737	17.383
A	R-PEL_TRAWL	BACOMA	SWE	8.29	0.134	4.6	0	7.332	0.165			1.9	0.064					5.668	2.095				
A	R-TRAMMEL	NONE	SWE	23.925	0.387	65.336	4.552	79.877		35.925		46.67	0.039	46.748	0.899	89.191	0.835	70.873	1.471	55.521	0.715	69.454	0.912
A	TRAMMEL	NONE	SWE																				
B	DEM_SEINE	NONE	DEN															1.082					
B	DREDGE	NONE	DEN									6.043											
B	GILL	NONE	DEN	49.003		87.29	0.503	56.241		39.506		7.577		1.21	0.022								
B	NONE	NONE	DEN	1099.047		42.562		84.845		10.805		2.594				1.664	0			184.128		120.47	0
B	OTTER	NONE	DEN	66.644		75.547		34.598		10.361		2.687		6.582	0.746	0.975	0	1.561	0.333				
B	PEL_TRAWL	NONE	DEN	36.194		96.469		21.989		24.877		5.774		13.926	1.351	4.69	6.159	1.161	0.118	0.008	0.002	0.113	0.453
B	POTS	NONE	DEN			0.036				0.287													
B	R-DEM_SEINE	NONE	DEN	0.303		161.643		85.156		46.469								93.312		257.08			

B	R-GILL	NONE	DEN	631.346	16.727	790.672	23.431	750.081	27.48	756.666	53.916	902.802	35.108	815.586	30.918	482.73	45.626	418.601	19.229	257.817	15.585	100.151	6.287
B	R-LONGLINE	NONE	DEN	257.152	3.528	518.782	10.748	332.073		205.33		116.854	0.146	92.476	6.203	144.064	16.76	126.505	6.203	60.462	2.182	20.647	1.123
B	R-OTTER	NONE	DEN	3899.472	252.222	3739.947	302.65	6691.855	831.649	4717.477	571.087	6067.914	336.37	6943.064	502.144	9850.738	584.229	10016.554	849.39	11231.965	1366.153	5742.216	1084.082
B	R-PEL_TRAWL	NONE	DEN	416.153	32.008	201.234	17.6	563.042	63.12	369.115	40.982	14.517	0.765	94.004	6.952	57.378	3.325	51.145	4.224	21.943	2.623		
B	R-TRAMMEL	NONE	DEN	7.68	0.105	2.476	0	4.251		37.782		27.225		70.15	0.448	10.375		1.534	0	0.54	0.01	0.364	0.011
B	GILL	NONE	EST																	0.027	0	0.053	
B	PEL_TRAWL	NONE	EST			47.055		0.208		39.781		19.406		16.916	1.308			6.879	0.781			0.048	0
B	POTS	NONE	EST																	0.045	0.002	0.064	
B	R-GILL	NONE	EST			301.068	9.024	296.195	13.066	228.814	20.789	167.509	6.629	160.533	4.857								
B	R-OTTER	BACOMA	EST			73.286	4.971	28.466	4.715	62.518	11.625					525.539	55.172	622.073	112.734	404.35	98.005	214.32	45.679
B	R-PEL_TRAWL	BACOMA	EST			103.166		277.358	42.179	445.897	41.955	610.729	64.11	444.958	38.167	266.452	7.958	546.931	108.163	278.039	47.153	28.926	8.111
B	NONE	NONE	FIN																			153.586	0
B	OTTER	NONE	GER									0.2		6.155	0.702	0.075	0	0.046	0.015				
B	PEL_TRAWL	NONE	GER	4.768						0.15						0.2	0.331						
B	R-DEM_SEINE	BACOMA	GER					66.799		57.855		93.945		338.514		232.593		365.273		207.81			
B	R-DEM_SEINE	NONE	GER	0.59																			
B	R-GILL	NONE	GER	19.35	0.933	171.503	5.173	15.815	0.689	1.551	0.098	8.14	0.305	19.17	0.68								
B	R-LONGLINE	NONE	GER	0.018	0	1.342	0.017	0.033				0.07	0			0.017	0.001						
B	R-OTTER	BACOMA	GER					1198.509	220.911	596.354	110.574	1960.412	123.008	1990.551	259.674	2456.128	244.151	792.814	103.038	1634.01	279.43		
B	R-OTTER	NONE	GER	1038.973	56.17	1569.592	112.586					25.56	1.43	33.958	2.439							526.33	134.568
B	R-PEL_TRAWL	BACOMA	GER					727.945	124.565	870.076	95.299	259.58	12.48	841.959	77.843	1227.978	34.065	1896.336	316.175	590.3	91.157		
B	R-PEL_TRAWL	NONE	GER	1530.017	27.919	578.167	22.003															4.14	
B	GILL	NONE	LAT															0.129	0.004				
B	OTTER	NONE	LAT																				
B	PEL_TRAWL	NONE	LAT	57.284		69.406		55.862		207.198		149.231		176.539	15.256	158.573	107.513	254.045	27.563	19.793	5.707	52.641	279.83
B	R-GILL	NONE	LAT	3379.842	147.204	2106.243	70.329	1821.114	67.905	1657.431	194.891	1963.806	73.361	2333.438	74.188	2335.985	237.142	1709.866	85.889	1235.456	112.809	657.368	78.229
B	R-OTTER	BACOMA	LAT	623.339	26.299	930.693	21.992	1603.49	106.91	1043.4	39.519	1657.596	157.747	1776.227	130.118	2433.691	313.827	2856.417	444.576	2692.263	454.379	1430.52	331.102
B	R-PEL_TRAWL	BACOMA	LAT	348.395	9.211	5.853		139.569	28.252	751.129	87.308	31.967	2.875	122.037	10.546					134.622	22.831	101.277	26.165
B	OTTER	NONE	LIT													0.3	0						
B	PEL_TRAWL	NONE	LIT											51.6	0	30.5	43.49	26.7	0	1.8	0.569	0.291	1.688

B	R-GILL	NONE	LIT			3.2	0.072			1.192	0.039			450.7	15.667	483.8	139.3	304.991	0	188.217	10.28	216.431	4.849
B	R-LONGLINE	NONE	LIT											28.5	0	21.6	0	17.4	0			1.381	0.081
B	R-OTTER	BACOMA	LIT											2041.5	189.42	2594.9	232.061	2702	109.773	2164.701	116.747	1450.325	35.956
B	R-OTTER	NONE	LIT			23.455	1.6	112.492	11.927	669.382	71.054												
B	R-PEL_TRAWL	BACOMA	LIT															37.4	0	59.9	10.158	9.975	3.054
B	R-PEL_TRAWL	NONE	LIT			122.31	4.964	791.086	81.115	1732.345	180.211			217.9	0	13.3	0						
B	GILL	NONE	POL	6.108		2.011	0.048	1.835		0.96		0.952		1.72	0.145	1.044	0	13.434	0.745	5.198	0	16.117	
B	OTTER	NONE	POL	37.884		31.983		7.693		2.927		1.621				0.174	0	30.827	4.415	21.774	5.43	5.938	
B	PEL_TRAWL	NONE	POL	320.649		351.991		261.732		132.991		143.389		58.027	5.935	57.515	54.421	12.991	1.204	32.138	10.459	7.96	29.605
B	POTS	NONE	POL	0.173		0.19		1.414										2.456	0.188			1.161	
B	R-GILL	NONE	POL	5217.353	162.046	3496.05	112.477	3581.75	142.772	2048.145	135.674	2787.954	73.164	3448.333	144.252	3323.173	258.78	2938.805	174.159	3476.939	208.852	2672.47	191.124
B	R-LONGLINE	NONE	POL	2122.34	28.343	1804.499	26.135	2552.989		1371.26		913.331	2.783	513.741	36.16	1371.711	174.973	1103.678	44.966	708.586	26.27	418.695	22.908
B	R-OTTER	BACOMA	POL	5366.196	282.838	5290.561	359.921	6282.033	706.441	3398.702	510.151	4466.33	275.45	5478.163	490.846	6548.097	626.444	6039.381	919.135				
B	R-OTTER	NONE	POL															473.843	40.08	9186.583	1397.805	8248.309	1241.351
B	R-PEL_TRAWL	BACOMA	POL	1188.04	20.357	234.785		1111.494	22.842	1377.609	21.428	33.603	1.297	261.497	9.375	28.093	0.839	149.747	28.476				
B	R-PEL_TRAWL	NONE	POL															17.489	0.563	82.561	11.561	110.04	
B	GILL	NONE	SWE			0.014	0.001	0.132		0.027		0.11		0.06	0.004	0.195	0	0.148	0.008	0.038	0		
B	NONE	NONE	SWE	5.235		3.432		10.521		7.951		7.081		3.613		0.152	0						
B	OTTER	NONE	SWE	24.396		21.521		14.754		15.526		16.187		21.877	2.43	9.675	0	2.727	0.623	1.956	0.499	4.779	
B	PEL_TRAWL	NONE	SWE	101.609		96.335		36.18		100.102		78.84		96.468	12.326	21.658	0	13.298	3.071	2.059	0.393	4.245	0.145
B	POTS	NONE	SWE	0.034		0.201		0.142		0.036		1.334		11.753	0.713	7.641	0	0.244	0.018	1.007	0.031	3.997	
B	R-GILL	NONE	SWE	2894.455	39.92	1864.409	57.569	1628.865	59.646	1516.506	93.599	1969.153	78.343	1834.792	98.473	1080.677	31.98	801.663	40.068	710.409	18.8	372.923	23.763
B	R-LONGLINE	NONE	SWE	1196.81	16.161	951.131	19.274	895.944		536.722		723.961	0.951	620.801	48.13	412.345	62.481	356.395	21.296	316.247	13.685	209.222	13.687
B	R-OTTER	BACOMA	SWE	7130.635	426.435	4501.72	648.782	5356.659	1334.091	6107.68	1459.038	5792.44	665.22	6784.565	982.441	7030.019	655.981	7008.728	1622.581	8084.577	2628.668	3377.378	1019.981
B	R-OTTER	NONE	SWE											156.415	21.151	273.785	27.218						
B	R-OTTER	T90	SWE											77.05	12.22	886.7	74.835	1145.249	277.341	752.612	229.499	1172.957	345.385
B	R-PEL_TRAWL	BACOMA	SWE	493.993	26.05	320.588		1595.952	392.7	1225.602	226.546	161.974	31.815	394.464	45.819	113.975	9.424	553.482	180.626	95.232	29.552	5.775	1.664
B	R-PEL_TRAWL	NONE	SWE																	3.882	1.108		
B	R-PEL_TRAWL	T90	SWE															23.938	7.493			5.478	1.536
B	R-TRAMMEL	NONE	SWE	2.056	0.029	0.715	0.017	0.225		0.378		1.129		0.293	0.018			0.004	0	0.158	0.006	0.355	0.026

B	TRAMMEL	NONE	SWE	0.645	0.012	0.187	0.003	0.206				0.004											
C	PEL_TRAWL	NONE	DEN																				
C	GILL	NONE	EST																	0.224	0.013	0.513	0.022
C	PEL_TRAWL	NONE	EST																	0	0	0.073	0
C	POTS	NONE	EST																	0.009		0.019	
C	GILL	NONE	FIN	0.2	0	0.112	0	0.051	0	0.019	0	0.112	0	0.274	0.003	1.981	0	1.22	0.001	0.514	0.007	7.285	0.447
C	NONE	NONE	FIN																			2.153	0.211
C	PEL_TRAWL	NONE	FIN																			0.005	0
C	POTS	NONE	FIN	0.073	0	0.072	0							0.002	0.001								
C	R-GILL	NONE	POL																	0.673	0.031	0.163	0.011
C	R-OTTER	NONE	POL																			0.585	
C	GILL	NONE	SWE			1.132	0	0.006	0							0.018	0						
C	OTTER	NONE	SWE	0.002		0.29		3.97												0.5	0.023		
C	R-GILL	NONE	SWE	12.146		9.748		9.803		12.547		14.873		33.915	1.677	41.104	1.25	59.892	3.427	64.84	1.872	57.15	3.589
C	R-LONGLINE	NONE	SWE									0.015											
C	R-OTTER	BACOMA	SWE									0.78											
C	R-OTTER	T90	SWE																			0.003	0.001
GRAND TOTAL A+B+C				61062.229	3132.995	53984.253	5343.511	63086.839	5364.214	57411.666	5082.977	50302.463	2769.307	53672.904	4522.249	57667.189	6034.284	59104.858	7441.251	61246.639	8011.358	40188.614	7327.325
GRAND TOTAL 28.2				263.982	0.501	355.401	3.671	267.167	1.928	208.937	7.395	100.753	1.22	159.849	0.114	49.943	0.026	80.096	0.3	162.384	0	188.209	0

Table 5.1.3.2. Landings (t) and discards (t) for cod in 2004-2013 by gear category and area. An “r” in front of the gear type indicates regulated gears in accordance with Council Regulation (EC) 1098/2007. Gear types without an “r” are non-regulated gears. Data from Estonia are only available from 2005 onwards.

reg_area	reg_gear	specon	2004 L	2004 D	2005 L	2005 D	2006 L	2006 D	2007 L	2007 D	2008 L	2008 D	2009 L	2009 D	2010 L	2010 D	2011 L	2011 D	2012 L	2012 D	2013 L	2013 D
28.2	GILL	NONE													0.002		0.007		0.47		0.2	
28.2	GILL	NONE																	0.025		0.051	
28.2	OTTER	NONE			0.03		0.187															
28.2	PEL_TRAWL	NONE	17.111		8.652		9.246		13.497		4.698				0.649		3.289		0.703		0.059	
28.2	PEL_TRAWL	NONE															0.42				0.048	
28.2	POTS	NONE																	0.02		0.001	
28.2	R-GILL	NONE	73.617		151.251	3.671	89.968	1.428	101.768	7.395	39.315	1.22	38.718	0.114	37.329	0.026	35.774	0.3	32.713		50.141	
28.2	R-OTTER	BACOMA	173.254	0.501	195.468		167.766	0.5	93.045		56.74		121.131		11.963		40.606		114.053		50.194	
28.2	R-OTTER	BACOMA							0.627													
28.2	R-OTTER	BACOMA																	14.4		15.11	
28.2	R-PEL_TRAWL	BACOMA																			72.405	
A	BEAM	NONE													2.012		2.584					
A	DEM_SEINE	NONE	0	0.002	0.506		6.594		0.224													
A	DEM_SEINE	NONE	0.006	0					0.009													
A	DREDGE	NONE																				
A	GILL	NONE	0.013	0	0.551	0.031	0.419		0.603		0.065		0.564	0.009	0.835	0	1.84	0.018	1.285	0.019	0.783	0
A	GILL	NONE	0.153	0	22.097	0.857	21.406		17.317		4.442		0.632	0	2.595	0	0.238	0.003	0.82	0.014	0.65	0
A	GILL	NONE	8.501	0	1.447	0.266	0.988		4.893		3.478		0.586	0	0.029	0			0.343	0.007	7.698	0
A	GILL	NONE	58.368	0	216.124	24.25	123.358		116.573		20.832		12.082	0.003	6.852	0	6.808	0.057	2.105	0.029	1.865	0
A	NONE	NONE	0.84		22.717		7.04	0.029	35.179		15.055		6.023		16.651	0						
A	NONE	NONE	3.232		18.222		34.149	0.99	9.442		3.169		2.879									
A	NONE	NONE	2829.229		445.685		848.599	17.567	110.254		58.63		27.33		45.915	0	46.687		62.571		35.28	0
A	NONE	NONE																			285.336	0
A	OTTER	NONE	0.91		0.06		0.975		0.45				0.05	0.005					1.349	0.039	0.015	
A	OTTER	NONE	3.5		3.251		0.638		0.6		0.054						7.064		0.005	0	0.249	
A	OTTER	NONE	21.306		76.895		60.183		39.123		57.33		32.655	0	22.102	33.873	52.473		8.33	0	10.56	

A	OTTER	NONE	76.884		124.267		124.871		50.67		22.681		24.293	0	8.241	15.491	9.031		6.705	0.328	1.849	
A	PEL_TRAWL	NONE	10.216	0.103	34.57		39.759		9.48		15.599		0.497	0.011	1.292	0	1.168	0.505	0.844	0.259		
A	PEL_TRAWL	NONE	26.102	0.21	64.964		83.459		49.678		46.671		16.824	0	16.891	0	6.092	2.237	3	0.227	1.92	
A	PEL_TRAWL	NONE	35.775	0.135	85.555		92.237		47.344		27.703		18.422	0	19.582	0	10.813	4.301	4.199	0.454	6.744	
A	PEL_TRAWL	NONE	60.38	0.512	70.934		53.235		30.863		26.802		22.893	0.029	27.99	0	24.968	9.262	2.731	0.537	2.925	
A	PEL_TRAWL	NONE							10.768				0.295	0								
A	POTS	NONE	0.247				1.17															
A	POTS	NONE	2.172		0.12		1.91		0.039		0.778		3.711		13.668	0	3.958	0.082	3.31	0.053	7.66	19.121
A	POTS	NONE	2.833		3.249		3.571		6.017		1.132		0.248		1.778	0	4.096	0.083	4.03	0.04	2.822	9.488
A	POTS	NONE			278.262		86.364		180.035		66.384		60.392		86.831	0	48.753	0.973	42.803	0.754	41.262	184.265
A	R-BEAM	BACOMA									9.28											
A	R-BEAM	NONE																				
A	R-DEM_SEINE	BACOMA					51.384		142.862		250.269		194.136		51.437		70.916		4.45			
A	R-DEM_SEINE	NONE	5.944	0.857	37.25																	
A	R-DEM_SEINE	NONE	1369.436	171.036	1013.943		1391.601		1460.247		1267.765	10.105	601.496	47.854	481.093	85.135	388.043	41.812	437.903	8.74	513.205	178.91
A	R-GILL	NONE	246.586	2.365	405.708	21.143	579.865	0.644	89.703	0.02	29.666	0	22.715	1.135	71.248	4.098	23.685	0.586	11.464	0.128	128.433	2.021
A	R-GILL	NONE	315.567	8.918	448.56	18.689	435.688	0.22	884.261	0.486	640.509	0.062	265.676	36.395	167.572	8.142	224.843	3.718	403.494	8.768	361.285	12.094
A	R-GILL	NONE	623.758	13.332	1140.444	48.276	1743.911	0.344	1698.892	0.377	1533.785	0.889	873.706	87.801	1173.752	40.013	863.585	29.373	1030.48	15.878	874.88	23.315
A	R-GILL	NONE	1217.235	17.988	1151.004	45.964	1062.941	0.275	1152.775	0.805	1244.681	2.384	946.215	39.522	816.929	17.212	870.209	14.532	873.389	11.431	658.386	15.778
A	R-GILL	NONE	1490.291	18.357	2935.391	145.392	2382.296	1.039	2177.17	0.876	1932.504	2.758	1447.492	77.737	1425.737	130.33	1516.197	0.09	1518.008	24.377	1299.392	31.503
A	R-GILL	NONE			59.875	3.829	102.067	0.24	51.672	0.054	132.105	0.187	194.397	8.147								
A	R-LONGLINE	NONE	24.023	0.543	59.323	3.592	32.111		20.331	0.427	19.769		13.287	0.328	32.246	0	27.022	0.507	14.31	0.187	15	6.33
A	R-LONGLINE	NONE	32.912	1.112	257.505	13.624	128.411		265.219	1.328	77.798		10.404	0.147	12.827	0	19.502	0.341	28.519	0.367	18.066	1.17
A	R-LONGLINE	NONE	113.103	2.524	203.576	7.067	99.562		54.234	0.159	57.512		156.608	0.122	106.995	0	166.625	2.184	231.077	3.741	256.241	8.2
A	R-LONGLINE	NONE	312.739	5.249	617.436	31.499	496.758		432.258	12.41	135.732		127.46	1.067	163.739	0	228.558	3.009	202.344	2.866	134.816	7.113
A	R-LONGLINE	NONE			7.57	0.424																
A	R-OTTER	BACOMA	129.162	12.324	309.473	0.644	176.729	15.481	1181.868	79.5	611.186	39.494	237.7	21.088	126.832	12.301	223.577	48.639				
A	R-OTTER	BACOMA	755.192	39.682	634.358	2.2	1216.623	60.401	1524.801	131.691	1255.531	50.713	879.204	91.186	429.466	44.707	1240.762	541.589	984.41	161.259	573.094	58.25
A	R-OTTER	BACOMA			1.46	0.016									0.38	0.039			3.207	0.248		
A	R-OTTER	BACOMA			57.284	0.202	0.853	0.05	172.839	14.099					86.728	11.054						

A	R-OTTER	BACOMA					4944.346	333.153	4941.107	318.695	3155.074	230.779	2622.668	299.973	2556.011	567.166	3133.063	411.349	3028.04	170.449		
A	R-OTTER	NONE	3684.842	440.396	4669.955	1207.411	22.368	2.011	8.85	0.699	18.203	1.514	4.28	0.402	0.715	0.155	16.903	1.486	0.7	0.034	2028.06	411.231
A	R-OTTER	NONE	7696.741	813.87	6866.227	1822.995	6674.728	633.834	7169.926	554.075	5708.069	485.783	5530.65	502.909	4542.831	963.199	5546.144	692.335	5875.519	292.793	4218.095	1310.223
A	R-OTTER	NONE			128.88	28.161	42.38	4.624														
A	R-OTTER	NONE													18.757	1.639						
A	R-OTTER	NONE															6.87	0.959	386.041	31.998	331.674	79.836
A	R-OTTER	T90													44.805	4.304	149.196	64.834	172.84	39.223	118.737	17.383
A	R-PEL_TRAWL	BACOMA	8.29	0.134	4.6	0	7.332	0.165			1.9	0.064					5.668	2.095				
A	R-PEL_TRAWL	BACOMA			1.17	0.015			9.872													
A	R-PEL_TRAWL	BACOMA			26.56	0.126	1.551	0.045	2.866													
A	R-PEL_TRAWL	BACOMA					75.651	0.425	186.993		4.751	0.11			12.91		12.617	3.939	5.49			
A	R-PEL_TRAWL	NONE	11.132	2.161	35.281	6.467	0.024	0.002														
A	R-PEL_TRAWL	NONE	17.172	2.461	40.729	10.401	102.066	9.7	19.19	1.493	7.719	0.664	23.821	2.164	36.408	6.339	0.096		0.568	0.022		
A	R-PEL_TRAWL	NONE			10.242	2.218																
A	R-TRAMMEL	NONE	1.791	0.027	15.922	1.344	29.499		88.219		96.028	0.103	60.742	7.548	42.158	3.498	77.387	0.187	103.3	2.53	80.55	3.225
A	R-TRAMMEL	NONE	23.925	0.387	65.336	4.552	79.877		35.925		46.67	0.039	46.748	0.899	89.191	0.835	70.873	1.471	55.521	0.715	69.454	0.912
A	R-TRAMMEL	NONE	250.717	3.793	482.132	59.966	496.409		473.27		470.584	0.302	296.857	14	358.663	35.018	395.314	0.003	556.942	12.498	563.381	10.233
A	TRAMMEL	NONE	0.003																			
A	TRAMMEL	NONE	4.399		18.139		3.944		4.432		5.759		0.005		0.518		0.219		0.201		0.862	
A	TRAMMEL	NONE			2.77		1.517		2.885		1.498		0.285				0.017					
A	TRAMMEL	NONE																				
B	DEM_SEINE	NONE															1.082					
B	DREDGE	NONE									6.043											
B	GILL	NONE	6.108		2.011	0.048	1.835		0.96		0.952		1.72	0.145	1.044	0	13.434	0.745	5.198	0	16.117	
B	GILL	NONE	49.003		87.29	0.503	56.241		39.506		7.577		1.21	0.022								
B	GILL	NONE			0.014	0.001	0.132		0.027		0.11		0.06	0.004	0.195	0	0.148	0.008	0.038	0		
B	GILL	NONE															0.129	0.004				
B	GILL	NONE																	0.027	0	0.053	
B	NONE	NONE	5.235		3.432		10.521		7.951		7.081		3.613		0.152	0						
B	NONE	NONE	1099.047		42.562		84.845		10.805		2.594				1.664	0			184.128		120.47	0

B	NONE	NONE																			153.586	0
B	OTTER	NONE	24.396		21.521		14.754		15.526		16.187		21.877	2.43	9.675	0	2.727	0.623	1.956	0.499	4.779	
B	OTTER	NONE	37.884		31.983		7.693		2.927		1.621				0.174	0	30.827	4.415	21.774	5.43	5.938	
B	OTTER	NONE	66.644		75.547		34.598		10.361		2.687		6.582	0.746	0.975	0	1.561	0.333				
B	OTTER	NONE									0.2		6.155	0.702	0.075	0	0.046	0.015				
B	OTTER	NONE													0.3	0						
B	OTTER	NONE																				
B	PEL_TRAWL	NONE	4.768						0.15						0.2	0.331						
B	PEL_TRAWL	NONE	36.194		96.469		21.989		24.877		5.774		13.926	1.351	4.69	6.159	1.161	0.118	0.008	0.002	0.113	0.453
B	PEL_TRAWL	NONE	57.284		69.406		55.862		207.198		149.231		176.539	15.256	158.573	107.513	254.045	27.563	19.793	5.707	52.641	279.83
B	PEL_TRAWL	NONE	101.609		96.335		36.18		100.102		78.84		96.468	12.326	21.658	0	13.298	3.071	2.059	0.393	4.245	0.145
B	PEL_TRAWL	NONE	320.649		351.991		261.732		132.991		143.389		58.027	5.935	57.515	54.421	12.991	1.204	32.138	10.459	7.96	29.605
B	PEL_TRAWL	NONE			47.055		0.208		39.781		19.406		16.916	1.308			6.879	0.781			0.048	0
B	PEL_TRAWL	NONE											51.6	0	30.5	43.49	26.7	0	1.8	0.569	0.291	1.688
B	POTS	NONE	0.034		0.201		0.142		0.036		1.334		11.753	0.713	7.641	0	0.244	0.018	1.007	0.031	3.997	
B	POTS	NONE	0.173		0.19		1.414										2.456	0.188			1.161	
B	POTS	NONE			0.036				0.287													
B	POTS	NONE																	0.045	0.002	0.064	
B	R-DEM_SEINE	BACOMA					66.799		57.855		93.945		338.514		232.593		365.273		207.81			
B	R-DEM_SEINE	NONE	0.303		161.643		85.156		46.469								93.312		257.08			
B	R-DEM_SEINE	NONE	0.59																			
B	R-GILL	NONE	19.35	0.933	171.503	5.173	15.815	0.689	1.551	0.098	8.14	0.305	19.17	0.68								
B	R-GILL	NONE	631.346	16.727	790.672	23.431	750.081	27.48	756.666	53.916	902.802	35.108	815.586	30.918	482.73	45.626	418.601	19.229	257.817	15.585	100.151	6.287
B	R-GILL	NONE	2894.455	39.92	1864.409	57.569	1628.865	59.646	1516.506	93.599	1969.153	78.343	1834.792	98.473	1080.677	31.98	801.663	40.068	710.409	18.8	372.923	23.763
B	R-GILL	NONE	3379.842	147.204	2106.243	70.329	1821.114	67.905	1657.431	194.891	1963.806	73.361	2333.438	74.188	2335.985	237.142	1709.866	85.889	1235.456	112.809	657.368	78.229
B	R-GILL	NONE	5217.353	162.046	3496.05	112.477	3581.75	142.772	2048.145	135.674	2787.954	73.164	3448.333	144.252	3323.173	258.78	2938.805	174.159	3476.939	208.852	2672.47	191.124
B	R-GILL	NONE			3.2	0.072			1.192	0.039			450.7	15.667	483.8	139.3	304.991	0	188.217	10.28	216.431	4.849
B	R-GILL	NONE			301.068	9.024	296.195	13.066	228.814	20.789	167.509	6.629	160.533	4.857								
B	R-LONGLINE	NONE	0.018	0	1.342	0.017	0.033				0.07	0			0.017	0.001						
B	R-LONGLINE	NONE	257.152	3.528	518.782	10.748	332.073		205.33		116.854	0.146	92.476	6.203	144.064	16.76	126.505	6.203	60.462	2.182	20.647	1.123

B	R-LONGLINE	NONE	1196.81	16.161	951.131	19.274	895.944		536.722		723.961	0.951	620.801	48.13	412.345	62.481	356.395	21.296	316.247	13.685	209.222	13.687
B	R-LONGLINE	NONE	2122.34	28.343	1804.499	26.135	2552.989		1371.26		913.331	2.783	513.741	36.16	1371.711	174.973	1103.678	44.966	708.586	26.27	418.695	22.908
B	R-LONGLINE	NONE											28.5	0	21.6	0	17.4	0			1.381	0.081
B	R-OTTER	BACOMA	623.339	26.299	930.693	21.992	1603.49	106.91	1043.4	39.519	1657.596	157.747	1776.227	130.118	2433.691	313.827	2856.417	444.576	2692.263	454.379	1430.52	331.102
B	R-OTTER	BACOMA	5366.196	282.838	5290.561	359.921	6282.033	706.441	3398.702	510.151	4466.33	275.45	5478.163	490.846	6548.097	626.444	6039.381	919.135				
B	R-OTTER	BACOMA	7130.635	426.435	4501.72	648.782	5356.659	1334.091	6107.68	1459.038	5792.44	665.22	6784.565	982.441	7030.019	655.981	7008.728	1622.581	8084.577	2628.668	3377.378	1019.981
B	R-OTTER	BACOMA			73.286	4.971	28.466	4.715	62.518	11.625					525.539	55.172	622.073	112.734	404.35	98.005	214.32	45.679
B	R-OTTER	BACOMA					1198.509	220.911	596.354	110.574	1960.412	123.008	1990.551	259.674	2456.128	244.151	792.814	103.038	1634.01	279.43		
B	R-OTTER	BACOMA											2041.5	189.42	2594.9	232.061	2702	109.773	2164.701	116.747	1450.325	35.956
B	R-OTTER	NONE	1038.973	56.17	1569.592	112.586					25.56	1.43	33.958	2.439							526.33	134.568
B	R-OTTER	NONE	3899.472	252.222	3739.947	302.65	6691.855	831.649	4717.477	571.087	6067.914	336.37	6943.064	502.144	9850.738	584.229	10016.55	849.39	11231.97	1366.153	5742.216	1084.082
B	R-OTTER	NONE			23.455	1.6	112.492	11.927	669.382	71.054												
B	R-OTTER	NONE											156.415	21.151	273.785	27.218						
B	R-OTTER	NONE															473.843	40.08	9186.583	1397.805	8248.309	1241.351
B	R-OTTER	T90											77.05	12.22	886.7	74.835	1145.249	277.341	752.612	229.499	1172.957	345.385
B	R-PEL_TRAWL	BACOMA	348.395	9.211	5.853		139.569	28.252	751.129	87.308	31.967	2.875	122.037	10.546					134.622	22.831	101.277	26.165
B	R-PEL_TRAWL	BACOMA	493.993	26.05	320.588		1595.952	392.7	1225.602	226.546	161.974	31.815	394.464	45.819	113.975	9.424	553.482	180.626	95.232	29.552	5.775	1.664
B	R-PEL_TRAWL	BACOMA	1188.04	20.357	234.785		1111.494	22.842	1377.609	21.428	33.603	1.297	261.497	9.375	28.093	0.839	149.747	28.476				
B	R-PEL_TRAWL	BACOMA			103.166		277.358	42.179	445.897	41.955	610.729	64.11	444.958	38.167	266.452	7.958	546.931	108.163	278.039	47.153	28.926	8.111
B	R-PEL_TRAWL	BACOMA					727.945	124.565	870.076	95.299	259.58	12.48	841.959	77.843	1227.978	34.065	1896.336	316.175	590.3	91.157		
B	R-PEL_TRAWL	BACOMA															37.4	0	59.9	10.158	9.975	3.054
B	R-PEL_TRAWL	NONE	416.153	32.008	201.234	17.6	563.042	63.12	369.115	40.982	14.517	0.765	94.004	6.952	57.378	3.325	51.145	4.224	21.943	2.623		
B	R-PEL_TRAWL	NONE	1530.017	27.919	578.167	22.003															4.14	
B	R-PEL_TRAWL	NONE			122.31	4.964	791.086	81.115	1732.345	180.211			217.9	0	13.3	0						
B	R-PEL_TRAWL	NONE															17.489	0.563	82.561	11.561	110.04	
B	R-PEL_TRAWL	NONE																	3.882	1.108		
B	R-PEL_TRAWL	T90															23.938	7.493			5.478	1.536
B	R-TRAMMEL	NONE	2.056	0.029	0.715	0.017	0.225		0.378		1.129		0.293	0.018			0.004	0	0.158	0.006	0.355	0.026
B	R-TRAMMEL	NONE	7.68	0.105	2.476	0	4.251		37.782		27.225		70.15	0.448	10.375		1.534	0	0.54	0.01	0.364	0.011
B	TRAMMEL	NONE	0.645	0.012	0.187	0.003	0.206				0.004											

C	GILL	NONE	0.2	0	0.112	0	0.051	0	0.019	0	0.112	0	0.274	0.003	1.981	0	1.22	0.001	0.514	0.007	7.285	0.447
C	GILL	NONE			1.132	0	0.006	0							0.018	0						
C	GILL	NONE																	0.224	0.013	0.513	0.022
C	NONE	NONE																			2.153	0.211
C	OTTER	NONE	0.002		0.29		3.97												0.5	0.023		
C	PEL_TRAWL	NONE																	0	0	0.073	0
C	PEL_TRAWL	NONE																			0.005	0
C	PEL_TRAWL	NONE																				
C	POTS	NONE	0.073	0	0.072	0							0.002	0.001								
C	POTS	NONE																	0.009		0.019	
C	R-GILL	NONE	12.146		9.748		9.803		12.547		14.873		33.915	1.677	41.104	1.25	59.892	3.427	64.84	1.872	57.15	3.589
C	R-GILL	NONE																	0.673	0.031	0.163	0.011
C	R-LONGLINE	NONE									0.015											
C	R-OTTER	BACOMA									0.78											
C	R-OTTER	NONE																			0.585	
C	R-OTTER	T90																			0.003	0.001

Table 5.1.3.3. Discard rates for cod 2004-2013 by gear category, area and country. An “r” in front of the gear type indicates regulated gears in accordance with Council Regulation (EC) 1098/2007). Gear types without an “r” are non-regulated gears. Data from Estonia are only available from 2005 onwards and from Finland from 2013.

reg_area	reg_gear	specon	country	2004 R	2005 R	2006 R	2007 R	2008 R	2009 R	2010 R	2011 R	2012 R	2013 R
28.2	GILL	NONE	EST										
28.2	PEL_TRAWL	NONE	EST										
28.2	POTS	NONE	EST										
28.2	R-OTTER	BACOMA	EST										
28.2	GILL	NONE	LAT										
28.2	OTTER	NONE	LAT										
28.2	PEL_TRAWL	NONE	LAT										
28.2	R-GILL	NONE	LAT		0.024	0.016	0.068	0.03	0.003	0.001	0.008		
28.2	R-OTTER	BACOMA	LAT	0.003		0.003							
28.2	R-PEL_TRAWL	BACOMA	LAT										
28.2	R-OTTER	BACOMA	LIT										
A	DEM_SEINE	NONE	DEN	1									
A	DREDGE	NONE	DEN										
A	GILL	NONE	DEN	0	0.101				0	0	0.008	0.014	0
A	NONE	NONE	DEN			0.02				0			0
A	OTTER	NONE	DEN						0	0.653		0.047	
A	PEL_TRAWL	NONE	DEN	0.004					0	0	0.285	0.098	
A	POTS	NONE	DEN							0	0.02	0.017	0.817
A	R-DEM_SEINE	NONE	DEN	0.111				0.008	0.074	0.15	0.097	0.02	0.258
A	R-GILL	NONE	DEN	0.012	0.047	0	0	0.001	0.051	0.084	0	0.016	0.024
A	R-LONGLINE	NONE	DEN	0.017	0.049		0.028		0.008	0	0.013	0.014	0.05
A	R-OTTER	NONE	DEN	0.096	0.21	0.087	0.072	0.078	0.083	0.175	0.111	0.047	0.237
A	R-PEL_TRAWL	NONE	DEN	0.125	0.203	0.087	0.072	0.079	0.083	0.148		0.037	
A	R-TRAMMEL	NONE	DEN	0.015	0.111			0.001	0.045	0.089	0	0.022	0.018
A	TRAMMEL	NONE	DEN										
A	R-GILL	NONE	EST		0.06	0.002	0.001	0.001	0.04				
A	R-OTTER	BACOMA	EST		0.011					0.093		0.072	
A	R-PEL_TRAWL	BACOMA	EST		0.013								
A	NONE	NONE	FIN										0
A	BEAM	NONE	GER										
A	GILL	NONE	GER	0	0.037				0	0	0.012	0.017	0
A	NONE	NONE	GER			0.028							
A	OTTER	NONE	GER						0	0.605		0	
A	PEL_TRAWL	NONE	GER	0.008					0	0	0.269	0.07	
A	POTS	NONE	GER							0	0.02	0.016	0.714
A	R-BEAM	BACOMA	GER										
A	R-BEAM	NONE	GER										
A	R-DEM_SEINE	BACOMA	GER										
A	R-DEM_SEINE	NONE	GER	0.126									
A	R-GILL	NONE	GER	0.021	0.041	0	0	0.001	0.091	0.033	0.033	0.015	0.026
A	R-LONGLINE	NONE	GER	0.022	0.057		0.021		0.024	0	0.018	0.013	0.297

A	R-OTTER	BACOMA	GER			0.063	0.061	0.068	0.103	0.182	0.116	0.053	
A	R-OTTER	NONE	GER	0.107	0.205	0.082	0.073	0.077	0.086	0.178	0.081	0.046	0.169
A	R-PEL_TRAWL	BACOMA	GER			0.006		0.023			0.238		
A	R-PEL_TRAWL	NONE	GER	0.163	0.155	0.077							
A	R-TRAMMEL	NONE	GER	0.015	0.078			0.001	0.111	0.077	0.002	0.024	0.038
A	TRAMMEL	NONE	GER										
A	PEL_TRAWL	NONE	LAT						0				
A	R-GILL	NONE	LAT	0.009	0.05	0.001	0	0	0.048	0.054	0.024	0.011	0.015
A	R-OTTER	BACOMA	LAT		0.004	0.055	0.075			0.113			
A	R-LONGLINE	NONE	LIT		0.053								
A	R-OTTER	NONE	LIT		0.179	0.098							
A	R-PEL_TRAWL	NONE	LIT		0.178								
A	DEM_SEINE	NONE	POL	0									
A	GILL	NONE	POL	0	0.155				0	0		0.02	0
A	OTTER	NONE	POL									0	
A	PEL_TRAWL	NONE	POL	0.01					0.022	0	0.302	0.235	
A	POTS	NONE	POL										
A	R-GILL	NONE	POL	0.027	0.04	0.001	0.001	0	0.12	0.046	0.016	0.021	0.032
A	R-LONGLINE	NONE	POL	0.033	0.05		0.005		0.014	0	0.017	0.013	0.061
A	R-OTTER	BACOMA	POL	0.087	0.002	0.081	0.063	0.061	0.081	0.088	0.179		
A	R-OTTER	NONE	POL								0.122	0.077	0.194
A	R-PEL_TRAWL	BACOMA	POL		0.005	0.028							
A	TRAMMEL	NONE	POL										
A	GILL	NONE	SWE	0	0.053				0.016	0	0.01	0.015	0
A	NONE	NONE	SWE			0.004				0			
A	OTTER	NONE	SWE						0.091			0.028	
A	PEL_TRAWL	NONE	SWE	0.008					0.001	0	0.271	0.164	
A	POTS	NONE	SWE							0	0.02	0.01	0.771
A	R-GILL	NONE	SWE	0.015	0.038	0	0.001	0.002	0.04	0.021	0.016	0.013	0.023
A	R-LONGLINE	NONE	SWE	0.022	0.034		0.003		0.001	0	0.013	0.016	0.031
A	R-OTTER	BACOMA	SWE	0.05	0.003	0.047	0.079	0.039	0.094	0.094	0.304	0.141	0.092
A	R-OTTER	NONE	SWE							0.08			
A	R-OTTER	T90	SWE							0.088	0.303	0.185	0.128
A	R-PEL_TRAWL	BACOMA	SWE	0.016	0	0.022		0.033			0.27		
A	R-TRAMMEL	NONE	SWE	0.016	0.065			0.001	0.019	0.009	0.02	0.013	0.013
A	TRAMMEL	NONE	SWE										
B	DEM_SEINE	NONE	DEN										
B	DREDGE	NONE	DEN										
B	GILL	NONE	DEN		0.006				0.018				
B	NONE	NONE	DEN							0			0
B	OTTER	NONE	DEN						0.102	0	0.176		
B	PEL_TRAWL	NONE	DEN						0.088	0.568	0.092	0.2	0.8
B	POTS	NONE	DEN										
B	R-DEM_SEINE	NONE	DEN										
B	R-GILL	NONE	DEN	0.026	0.029	0.035	0.067	0.037	0.037	0.086	0.044	0.057	0.059
B	R-LONGLINE	NONE	DEN	0.014	0.02			0.001	0.063	0.104	0.047	0.035	0.052

B	R-OTTER	NONE	DEN	0.061	0.075	0.111	0.108	0.053	0.067	0.056	0.078	0.108	0.159
B	R-PEL_TRAWL	NONE	DEN	0.071	0.08	0.101	0.1	0.05	0.069	0.055	0.076	0.107	
B	R-TRAMMEL	NONE	DEN	0.013	0				0.006		0	0.018	0.029
B	GILL	NONE	EST									0	
B	PEL_TRAWL	NONE	EST						0.072		0.102		0
B	POTS	NONE	EST									0.043	
B	R-GILL	NONE	EST		0.029	0.042	0.083	0.038	0.029				
B	R-OTTER	BACOMA	EST		0.064	0.142	0.157			0.095	0.153	0.195	0.176
B	R-PEL_TRAWL	BACOMA	EST			0.132	0.086	0.095	0.079	0.029	0.165	0.145	0.219
B	NONE	NONE	FIN										0
B	OTTER	NONE	GER						0.102	0	0.246		
B	PEL_TRAWL	NONE	GER							0.623			
B	R-DEM_SEINE	BACOMA	GER										
B	R-DEM_SEINE	NONE	GER										
B	R-GILL	NONE	GER	0.046	0.029	0.042	0.059	0.036	0.034				
B	R-LONGLINE	NONE	GER	0	0.013			0		0.056			
B	R-OTTER	BACOMA	GER			0.156	0.156	0.059	0.115	0.09	0.115	0.146	
B	R-OTTER	NONE	GER	0.051	0.067			0.053	0.067				0.204
B	R-PEL_TRAWL	BACOMA	GER			0.146	0.099	0.046	0.085	0.027	0.143	0.134	
B	R-PEL_TRAWL	NONE	GER	0.018	0.037								
B	GILL	NONE	LAT								0.03		
B	OTTER	NONE	LAT										
B	PEL_TRAWL	NONE	LAT						0.08	0.404	0.098	0.224	0.842
B	R-GILL	NONE	LAT	0.042	0.032	0.036	0.105	0.036	0.031	0.092	0.048	0.084	0.106
B	R-OTTER	BACOMA	LAT	0.04	0.023	0.063	0.036	0.087	0.068	0.114	0.135	0.144	0.188
B	R-PEL_TRAWL	BACOMA	LAT	0.026		0.168	0.104	0.083	0.08			0.145	0.205
B	OTTER	NONE	LIT							0			
B	PEL_TRAWL	NONE	LIT						0	0.588	0	0.24	0.853
B	R-GILL	NONE	LIT		0.022		0.032		0.034	0.224	0	0.052	0.022
B	R-LONGLINE	NONE	LIT						0	0	0		0.055
B	R-OTTER	BACOMA	LIT						0.085	0.082	0.039	0.051	0.024
B	R-OTTER	NONE	LIT		0.064	0.096	0.096						
B	R-PEL_TRAWL	BACOMA	LIT								0	0.145	0.234
B	R-PEL_TRAWL	NONE	LIT		0.039	0.093	0.094		0	0			
B	GILL	NONE	POL		0.023				0.078	0	0.053	0	
B	OTTER	NONE	POL							0	0.125	0.2	
B	PEL_TRAWL	NONE	POL						0.093	0.486	0.085	0.246	0.788
B	POTS	NONE	POL								0.071		
B	R-GILL	NONE	POL	0.03	0.031	0.038	0.062	0.026	0.04	0.072	0.056	0.057	0.067
B	R-LONGLINE	NONE	POL	0.013	0.014			0.003	0.066	0.113	0.039	0.036	0.052
B	R-OTTER	BACOMA	POL	0.05	0.064	0.101	0.131	0.058	0.082	0.087	0.132		
B	R-OTTER	NONE	POL								0.078	0.132	0.131
B	R-PEL_TRAWL	BACOMA	POL	0.017		0.02	0.015	0.037	0.035	0.029	0.16		
B	R-PEL_TRAWL	NONE	POL								0.031	0.123	
B	GILL	NONE	SWE		0.067				0.063	0	0.051	0	
B	NONE	NONE	SWE							0			

B	OTTER	NONE	SWE						0.1	0	0.186	0.203	
B	PEL_TRAWL	NONE	SWE						0.113	0	0.188	0.16	0.033
B	POTS	NONE	SWE						0.057	0	0.069	0.03	
B	R-GILL	NONE	SWE	0.014	0.03	0.035	0.058	0.038	0.051	0.029	0.048	0.026	0.06
B	R-LONGLINE	NONE	SWE	0.013	0.02			0.001	0.072	0.132	0.056	0.041	0.061
B	R-OTTER	BACOMA	SWE	0.056	0.126	0.199	0.193	0.103	0.126	0.085	0.188	0.245	0.232
B	R-OTTER	NONE	SWE						0.119	0.09			
B	R-OTTER	T90	SWE						0.137	0.078	0.195	0.234	0.227
B	R-PEL_TRAWL	BACOMA	SWE	0.05		0.197	0.156	0.164	0.104	0.076	0.246	0.237	0.224
B	R-PEL_TRAWL	NONE	SWE									0.222	
B	R-PEL_TRAWL	T90	SWE								0.238		0.219
B	R-TRAMMEL	NONE	SWE	0.014	0.023				0.058		0	0.037	0.068
B	TRAMMEL	NONE	SWE	0.018	0.016								
C	PEL_TRAWL	NONE	DEN										
C	GILL	NONE	EST									0.055	0.041
C	PEL_TRAWL	NONE	EST										0
C	POTS	NONE	EST										
C	GILL	NONE	FIN	0	0	0	0	0	0.011	0	0.001	0.013	0.058
C	NONE	NONE	FIN										0.089
C	PEL_TRAWL	NONE	FIN										0
C	POTS	NONE	FIN	0	0				0.333				
C	R-GILL	NONE	POL									0.044	0.063
C	R-OTTER	NONE	POL										
C	GILL	NONE	SWE		0	0				0			
C	OTTER	NONE	SWE									0.044	
C	R-GILL	NONE	SWE						0.047	0.03	0.054	0.028	0.059
C	R-LONGLINE	NONE	SWE										
C	R-OTTER	BACOMA	SWE										
C	R-OTTER	T90	SWE										0.25

Table 5.1.3.4. Discard rates for cod 2004-2013 by gear category and area. An "r" in front of the gear type indicates regulated gears in accordance with Council Regulation (EC) 1098/2007. Gear types without an "r" are non-regulated gears. Data from Estonia are only available from 2005 onwards. Qualifier for discard estimates (DQI): A>66% of landings were covered with discard estimates, 33%>B<=66%, C<=33%.

reg_area	reg_gear	specon	2004 DQI	2005 DQI	2006 DQI	2007 DQI	2008 DQI	2009 DQI	2010 DQI	2011 DQI	2012 DQI	2013 DQI
28.2	GILL	NONE										
28.2	OTTER	NONE										
28.2	PEL_TRAWL	NONE										
28.2	POTS	NONE										
28.2	R-GILL	NONE		0.024 C	0.016 C	0.068 B	0.03 C	0.003 C	0.001 C	0.008 C		
28.2	R-OTTER	BACOMA	0.003 B		0.003 B							
28.2	R-PEL_TRAWL	BACOMA										
A	BEAM	NONE										
A	DEM_SEINE	NONE	0.25 C									
A	DREDGE	NONE										
A	GILL	NONE	C	0.096 C				0.001 C	C	0.009 C	0.015 C	C
A	NONE	NONE			0.02 C				C			B
A	OTTER	NONE						0 C	0.619 C		0.022 C	
A	PEL_TRAWL	NONE	0.007 C					0.001 C	B	0.275 B	0.121 C	
A	POTS	NONE							C	0.02 C	0.017 C	0.804 C
A	R-BEAM	BACOMA										
A	R-BEAM	NONE										
A	R-DEM_SEINE	BACOMA										
A	R-DEM_SEINE	NONE	0.111 A				0.008 A	0.074 A	0.15 A	0.097 A	0.02 A	0.258 A
A	R-GILL	NONE	0.015 C	0.044 C	0 C	0 C	0.001 C	0.063 C	0.052 A	0.014 A	0.016 B	0.025 B
A	R-LONGLINE	NONE	0.019 C	0.047 C		0.018 C		0.005 C	C	0.013 B	0.015 B	0.051 B
A	R-OTTER	BACOMA	0.056 B	0.003 C	0.061 B	0.065 B	0.06 A	0.099 A	0.166 A	0.179 A	0.076 A	0.092 A
A	R-OTTER	NONE	0.099 A	0.208 A	0.087 A	0.072 A	0.078 A	0.083 A	0.175 A	0.111 A	0.049 A	0.215 A
A	R-OTTER	T90							0.088 A	0.303 A	0.185 A	0.128 A
A	R-PEL_TRAWL	BACOMA	0.016 C	0.004 C	0.007 C		0.025 C			0.248 C		
A	R-PEL_TRAWL	NONE	0.14 B	0.181 B	0.087 A	0.072 A	0.079 A	0.083 A	0.148 A		0.037 A	
A	R-TRAMMEL	NONE	0.015 C	0.105 C			0.001 C	0.053 C	0.074 A	0.003 A	0.022 C	0.02 C
A	TRAMMEL	NONE										
B	DEM_SEINE	NONE										
B	DREDGE	NONE										
B	GILL	NONE		0.006 C				0.054 C	C	0.052 C	C	
B	NONE	NONE							C			B
B	OTTER	NONE						0.101 B	A	0.133 C	0.2 C	
B	PEL_TRAWL	NONE						0.08 B	0.437 C	0.094 C	0.235 C	0.827 C
B	POTS	NONE						0.057 B	B	0.071 C	0.03 C	
B	R-DEM_SEINE	BACOMA										
B	R-DEM_SEINE	NONE										
B	R-GILL	NONE	0.029 B	0.031 C	0.037 C	0.074 C	0.033 C	0.039 B	0.085 B	0.049 B	0.059 B	0.07 B
B	R-LONGLINE	NONE	0.013 C	0.017 C			0.002 C	0.067 B	0.115 C	0.043 C	0.037 C	0.055 C
B	R-OTTER	BACOMA	0.053 B	0.088 B	0.141 B	0.16 A	0.081 A	0.102 A	0.09 B	0.142 A	0.193 A	0.181 A
B	R-OTTER	NONE	0.059 A	0.072 A	0.11 A	0.107 A	0.053 A	0.069 A	0.057 A	0.078 A	0.119 A	0.145 B
B	R-OTTER	T90						0.137 A	0.078 A	0.195 A	0.234 A	0.227 A
B	R-PEL_TRAWL	BACOMA	0.027 B		0.137 A	0.092 A	0.093 B	0.081 A	0.031 A	0.166 A	0.148 B	0.211 C
B	R-PEL_TRAWL	NONE	0.03 A	0.047 A	0.096 B	0.095 C	0.05 A	0.022 A	0.045 A	0.065 A	0.124 C	
B	R-PEL_TRAWL	T90								0.238 A		0.219 A
B	R-TRAMMEL	NONE	0.014 C	0.005 C				0.007 C		C	0.022 C	0.049 B
B	TRAMMEL	NONE	0.018 A	0.016 C								
C	GILL	NONE	B	C	C	C	C	0.011 C	B	0.001 C	0.026 C	0.057 B
C	NONE	NONE										0.089 A
C	OTTER	NONE									0.044 A	
C	PEL_TRAWL	NONE									A	C
C	POTS	NONE	A	A				0.333 C				
C	R-GILL	NONE						0.047 A	0.03 A	0.054 A	0.028 A	0.059 A
C	R-LONGLINE	NONE										
C	R-OTTER	BACOMA										
C	R-OTTER	NONE										
C	R-OTTER	T90										0.25 A

Table 5.1.3.5. Cod landings (L) and discards (D) at ages 1-5 ('000) by gear category and area 2003-2012. (Not updated for 2013) Landing and discard estimates in tons are for all age range (1-9). An "r" in front of the gear type indicates regulated gears in accordance with Council Regulation (EC) 1098/2007 (see section 2.6). Gear types without an "r" are non-regulated gears. Data on age distribution were available for areas A and B only. Data from Estonia are only available from 2005 onwards.

REG_AREA	Year	REG_GEAR	SPECON	Landings t	Discards t	AGE 0L	AGE 0D	AGE 1L	AGE 1D	AGE 2L	AGE 2D	AGE 3L	AGE 3D	AGE 4L	AGE 4D	AGE 5L	AGE 5D
28.2	2003	r-GILL	none	242,442	5,675	0,000	0,000	0,000	1,310	0,000	0,816	10,419	7,726	166,899	2,333	80,304	0,291
28.2	2003	r-OTTER	BACOMA	108,358	0,400	0,000	0,000	0,000	0,000	0,079	0,015	2,161	0,166	20,566	0,575	36,293	0,004
28.2	2004	r-OTTER	BACOMA	173,254	0,501	0,000	0,000	0,000	0,000	0,000	0,000	0,727	0,000	9,787	0,000	29,728	0,000
28.2	2005	r-OTTER	BACOMA	195,468	0,000	0,000	0,000	0,000	0,000	0,000	0,000	3,959	0,000	77,516	0,000	83,452	0,000
28.2	2006	r-GILL	none	89,968	1,428	0,000	0,000	0,000	0,000	0,000	0,077	0,501	0,644	30,662	1,134	46,102	0,060
28.2	2006	r-OTTER	BACOMA	167,766	0,500	0,000	0,000	0,000	0,000	0,000	0,000	18,528	0,000	77,589	0,000	49,796	0,000
28.2	2007	r-GILL	none	101,768	7,395	0,000	0,000	0,000	0,628	0,110	6,210	4,525	5,449	35,336	0,355	42,299	0,175
28.2	2008	r-GILL	none	39,315	1,220	0,000	0,000	0,000	0,022	0,000	0,707	5,182	1,239	11,685	0,197	12,642	0,044
A	2003	DREDGE	none	8,795	0,000	0,000	0,000	1,418	0,000	9,286	0,000	0,507	0,000	0,010	0,000	0,003	0,000
A	2003	GILL	none	105,543	5,355	0,000	0,000	3,363	2,892	34,113	13,184	25,607	0,766	11,869	0,005	2,588	0,000
A	2003	none	none	2734,176	0,000	0,000	0,000	133,256	0,000	1250,361	0,000	687,504	0,000	254,332	0,000	49,569	0,000
A	2003	OTTER	none	158,778	0,000	0,000	0,000	20,095	0,000	90,164	0,000	43,402	0,000	8,748	0,000	2,167	0,000
A	2003	PEL_TRAWL	none	118,099	0,000	0,000	0,000	4,686	0,000	62,937	0,000	41,928	0,000	9,483	0,000	2,015	0,000
A	2003	TRAMMEL	none	4,308	0,186	0,000	0,000	0,000	0,098	0,587	0,457	0,812	0,029	0,608	0,000	0,146	0,000
A	2003	r-DEM_SEIN	none	1398,457	163,944	0,000	0,000	190,387	69,062	654,885	306,867	491,030	31,495	109,946	0,991	21,726	0,000
A	2003	r-GILL	none	3936,838	130,647	0,000	0,000	174,845	70,294	1430,652	318,490	1012,326	18,840	392,061	0,203	86,425	0,000
A	2003	r-LONGLINE	none	366,763	5,168	0,000	0,000	8,363	0,000	124,813	0,000	160,955	0,000	39,043	0,000	10,770	0,000
A	2003	r-OTTER	none	11126,456	2800,158	0,000	7,468	1112,470	1502,030	5704,457	4995,317	3676,498	438,571	934,000	5,180	165,095	0,342
A	2003	r-PEL_TRAW	none	82,747	9,906	0,000	0,052	15,901	4,551	50,156	19,617	17,967	1,804	3,439	0,037	0,704	0,000
A	2003	r-TRAMMEL	none	311,497	17,387	0,000	0,000	2,325	9,384	46,944	42,808	43,877	2,496	44,351	0,025	10,364	0,000
A	2004	GILL	none	67,035	0,000	0,000	0,000	2,335	0,000	11,446	0,000	26,996	0,000	5,843	0,000	1,468	0,000
A	2004	none	none	2833,301	0,000	0,000	0,000	185,010	0,000	768,794	0,000	1334,224	0,000	241,663	0,000	40,894	0,000
A	2004	OTTER	none	102,599	0,000	0,000	0,000	10,030	0,000	38,837	0,000	39,709	0,000	7,125	0,000	1,511	0,000
A	2004	PEL_TRAWL	none	132,471	0,960	0,000	0,000	10,498	0,000	26,973	0,000	65,329	0,000	9,997	0,000	2,406	0,000
A	2004	TRAMMEL	none	4,402	0,000	0,000	0,000	0,003	0,000	0,060	0,000	1,361	0,000	0,653	0,000	0,180	0,000
A	2004	r-DEM_SEIN	none	1375,380	171,893	0,000	0,000	94,997	104,942	484,682	201,856	757,995	132,580	66,648	0,000	14,056	0,000
A	2004	r-GILL	none	3893,437	60,960	0,000	0,000	128,022	8,700	885,610	15,267	1384,634	9,079	386,699	0,000	75,459	0,000
A	2004	r-LONGLINE	none	482,777	9,428	0,000	0,000	28,536	3,031	184,832	5,355	173,437	3,429	40,700	0,000	7,293	0,000
A	2004	r-OTTER	none	11381,583	1254,266	0,000	0,000	577,692	833,868	2983,786	1471,611	6694,522	942,534	796,820	0,000	156,169	0,000
A	2004	r-PEL_TRAW	none	28,304	4,622	0,000	0,000	3,256	3,071	15,022	5,419	9,644	3,466	2,586	0,000	0,212	0,000
A	2004	r-TRAMMEL	none	276,432	4,207	0,000	0,000	2,907	0,000	8,630	0,000	77,989	0,000	33,685	0,000	10,229	0,000
A	2005	DEM_SEINE	none	0,506	0,000	0,000	0,000	0,001	0,000	0,226	0,000	0,086	0,000	0,093	0,000	0,020	0,000
A	2005	GILL	none	240,218	25,463	0,000	0,000	7,357	9,031	102,642	44,896	33,624	2,166	37,541	0,239	8,816	0,120
A	2005	none	none	486,624	0,000	0,000	0,000	9,698	0,000	201,728	0,000	65,227	0,000	97,155	0,000	14,095	0,000
A	2005	OTTER	none	204,472	0,000	0,000	0,000	6,688	0,000	115,023	0,000	38,524	0,000	32,242	0,000	8,022	0,000
A	2005	r-PEL_TRAW	BACOMA	32,330	0,141	0,000	0,000	0,000	0,000	0,000	0,038	2,933	0,308	20,794	0,011	7,095	0,000
A	2005	r-PEL_TRAW	none	86,252	19,086	0,000	0,000	1,366	8,392	52,657	41,848	19,487	1,972	13,700	0,256	4,806	0,126
A	2005	POTS	none	281,631	0,000	0,000	0,000	33,196	0,000	229,427	0,000	30,965	0,000	17,971	0,000	4,277	0,000
A	2005	TRAMMEL	none	20,909	0,000	0,000	0,000	0,378	0,000	4,364	0,000	1,500	0,000	4,630	0,000	0,775	0,000
A	2005	r-DEM_SEIN	none	1051,193	0,000	0,000	0,000	54,575	0,000	730,950	0,000	206,704	0,000	137,037	0,000	23,801	0,000
A	2005	r-GILL	none	6140,981	283,293	0,000	0,000	191,645	91,922	2635,377	313,933	881,598	15,195	941,689	1,723	227,624	0,870
A	2005	r-LONGLINE	none	1145,408	56,206	0,000	0,000	14,660	0,000	534,727	0,000	239,649	0,000	148,441	0,000	54,279	0,000
A	2005	r-OTTER	none	11665,061	3058,567	0,000	0,000	441,511	1880,248	7178,875	6178,209	2096,723	263,876	1742,035	34,388	413,883	16,987
A	2005	r-OTTER	BACOMA	1002,574	3,062	0,000	0,000	0,000	0,000	0,000	2,458	32,160	4,895	234,715	0,829	208,977	0,000
A	2005	r-PEL_TRAW	none	86,252	19,086	0,000	0,000	1,366	8,392	52,657	41,848	19,487	1,972	13,700	0,256	4,806	0,126
A	2005	r-PEL_TRAW	BACOMA	32,330	0,141	0,000	0,000	0,000	0,000	0,000	0,038	2,933	0,308	20,794	0,011	7,095	0,000
A	2005	r-TRAMMEL	none	563,390	65,862	0,000	0,000	8,071	24,147	114,602	120,330	34,827	5,686	135,119	0,715	17,453	0,345
A	2006	DEM_SEINE	none	6,594	0,000	0,000	0,000	0,352	0,000	1,962	0,000	2,955	0,000	0,355	0,000	0,069	0,000
A	2006	GILL	none	146,171	0,000	0,000	0,000	2,169	0,000	24,474	0,000	83,994	0,000	7,576	0,000	3,988	0,000
A	2006	none	none	889,788	18,586	0,000	0,000	12,765	3,208	140,293	18,586	503,504	23,712	42,537	1,280	31,479	0,000
A	2006	OTTER	none	186,667	0,000	0,000	0,000	0,249	0,000	12,767	0,000	135,730	0,000	7,539	0,000	7,204	0,000
A	2006	PEL_TRAWL	none	268,690	0,000	0,000	0,000	1,746	0,000	20,649	0,000	177,610	0,000	7,369	0,000	9,509	0,000
A	2006	POTS	none	93,015	0,000	0,000	0,000	3,208	0,000	26,142	0,000	53,292	0,000	3,682	0,000	1,060	0,000
A	2006	TRAMMEL	none	5,461	0,000	0,000	0,000	0,055	0,000	0,340	0,000	1,805	0,000	0,189	0,000	0,365	0,000
A	2006	r-DEM_SEIN	none	1391,601	0,000	0,000	0,000	26,704	0,000	222,779	0,000	1055,681	0,000	66,730	0,000	26,074	0,000
A	2006	r-GILL	none	6306,766	2,762	0,000	0,000	97,548	2,719	986,136	2,365	3177,159	0,976	355,581	0,000	229,456	0,000
A	2006	r-LONGLINE	none	756,842	0,000	0,000	0,000	3,441	0,000	123,912	0,000	440,729	0,000	35,895	0,000	22,597	0,000
A	2006	r-OTTER	BACOMA	6338,549	409,084	0,000	0,000	211,947	399,305	1675,254	319,994	4225,444	171,639	106,040	0,000	37,891	0,000
A	2006	r-OTTER	none	6739,476	640,469	0,000	0,000	95,551	111,653	1011,860	638,773	4853,112	797,364	291,387	50,688	196,383	3,388
A	2006	r-PEL_TRAW	none	102,090	9,702	0,000	0,000	6,033	1,692	34,160	9,677	60,498	12,080	4,874	0,768	1,429	0,052
A	2006	r-TRAMMEL	none	605,785	0,000	0,000	0,000	2,788	0,000	27,096	0,000	236,791	0,000	33,287	0,000	44,762	0,000
A	2007	DEM_SEINE	none	0,233	0,000	0,000	0,000	0,001	0,000	0,037	0,000	0,060	0,000	0,066	0,000	0,025	0,000
A	2007	GILL	none	139,386	0,000	0,000	0,000	0,451	0,000	20,412	0,000	29,672	0,000	45,552	0,000	11,717	0,000

Table 5.1.3.5 continued.

A	2007	none	none	154,875	0,000	0,000	0,000	0,951	0,000	31,964	0,000	28,888	0,000	40,084	0,000	9,126	0,000
A	2007	OTTER	none	90,843	0,000	0,000	0,000	0,062	0,000	9,212	0,000	15,909	0,000	33,210	0,000	6,155	0,000
A	2007	PEL_TRAWL	none	148,132	0,000	0,000	0,000	0,042	0,000	13,267	0,000	17,425	0,000	46,137	0,000	5,914	0,000
A	2007	POTS	none	186,091	0,000	0,000	0,000	2,260	0,000	52,113	0,000	61,268	0,000	61,552	0,000	14,881	0,000
A	2007	TRAMMEL	none	7,317	0,000	0,000	0,000	0,000	0,000	0,187	0,000	0,282	0,000	1,788	0,000	0,334	0,000
A	2007	r-DEM_SEIN	none	1460,247	0,000	0,000	0,000	3,826	0,000	234,072	0,000	387,580	0,000	574,943	0,000	123,718	0,000
A	2007	r-GILL	none	6054,472	2,617	0,000	0,000	43,744	1,462	678,642	3,632	1091,873	0,290	1833,389	0,000	407,805	0,000
A	2007	r-LONGLINE	none	772,041	14,324	0,000	0,000	3,063	0,713	103,758	18,622	136,096	14,324	219,008	5,011	50,505	0,713
A	2007	r-OTTER	BACOMA	14999,390	1098,757	0,000	0,000	853,633	743,958	3877,274	1375,546	3891,482	608,410	4103,649	211,422	559,512	36,504
A	2007	r-PEL_TRAW	none	19,190	1,493	0,000	0,000	0,150	0,109	3,628	1,879	5,469	1,440	6,627	0,499	1,423	0,098
A	2007	r-TRAMMEL	none	597,414	0,000	0,000	0,000	0,683	0,000	31,854	0,000	31,801	0,000	144,985	0,000	27,910	0,000
A	2008	GILL	none	28,817	0,000	0,000	0,000	0,034	0,000	1,283	0,000	4,834	0,000	4,461	0,000	3,689	0,000
A	2008	none	none	76,854	0,000	0,000	0,000	0,407	0,000	7,055	0,000	16,695	0,000	11,748	0,000	8,549	0,000
A	2008	OTTER	none	80,065	0,000	0,000	0,000	0,227	0,000	5,218	0,000	18,692	0,000	17,568	0,000	8,825	0,000
A	2008	PEL_TRAWL	none	116,775	0,000	0,000	0,000	182,767	0,000	51,899	0,000	21,972	0,000	16,302	0,000	7,524	0,000
A	2008	POTS	none	68,294	0,000	0,000	0,000	1,597	0,000	12,868	0,000	20,337	0,000	14,764	0,000	8,591	0,000
A	2008	TRAMMEL	none	7,257	0,000	0,000	0,000	0,000	0,000	0,013	0,000	0,297	0,000	0,466	0,000	0,954	0,000
A	2008	r-DEM_SEIN	none	1267,765	10,105	0,000	0,377	4,403	9,225	94,060	26,550	385,754	13,079	325,146	2,286	227,674	0,253
A	2008	r-GILL	none	5513,246	6,279	0,000	0,000	6,707	2,150	341,299	8,448	1137,736	4,211	769,266	0,481	672,391	0,031
A	2008	r-LONGLINE	none	290,809	0,000	0,000	0,000	1,843	0,000	36,023	0,000	74,412	0,000	63,028	0,000	41,925	0,000
A	2008	r-OTTER	BACOMA	5021,790	320,983	0,000	0,000	138,265	196,334	1489,197	440,498	2306,215	194,064	765,944	20,750	213,850	0,712
A	2008	r-OTTER	none	5726,272	487,297	0,000	0,089	25,862	72,648	647,799	390,854	1450,842	455,904	1164,535	223,080	862,176	21,827
A	2008	r-PEL_TRAW	none	7,719	0,664	0,000	0,000	0,015	0,098	1,064	0,532	1,395	0,622	0,944	0,304	0,977	0,029
A	2008	r-TRAMMEL	none	613,282	0,444	0,000	0,000	0,742	0,173	12,900	0,487	64,129	0,328	56,120	0,120	59,461	0,012
A	2009	GILL	none	13,864	0,012	0,000	0,000	0,591	0,008	0,520	0,024	2,187	0,009	3,860	0,000	1,899	0,000
A	2009	none	none	36,231	0,000	0,000	0,000	3,327	0,000	4,072	0,000	7,701	0,000	10,539	0,000	4,647	0,000
A	2009	OTTER	none	56,998	0,005	0,000	0,000	1013,205	0,002	0,352	0,009	4,339	0,004	7,980	0,000	6,074	0,000
A	2009	PEL_TRAWL	none	58,931	0,040	0,000	0,000	139,908	0,000	61,877	0,000	14,885	0,000	6,737	0,000	4,299	0,000
A	2009	POTS	none	64,351	0,000	0,000	0,000	13,557	0,000	16,979	0,000	16,251	0,000	19,831	0,000	7,514	0,000
A	2009	TRAMMEL	none	0,290	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,058	0,000	0,058	0,000	0,000	0,000
A	2009	r-DEM_SEIN	none	601,495	47,854	0,000	0,000	10,767	3,116	24,062	34,273	150,606	58,782	215,093	23,443	114,395	3,344
A	2009	r-GILL	none	3750,198	250,737	0,000	0,000	46,533	64,023	78,031	206,492	481,925	266,488	841,817	66,125	441,510	3,582
A	2009	r-LONGLINE	none	307,758	1,664	0,000	0,000	3,932	1,023	10,138	3,302	57,315	1,241	97,314	0,040	49,397	0,000
A	2009	r-OTTER	BACOMA	3739,569	412,246	0,000	0,000	17,819	142,284	339,036	373,526	1487,656	442,329	1365,046	160,057	339,768	9,825
A	2009	r-OTTER	none	5534,930	503,310	0,000	0,000	172,644	33,897	404,320	360,800	1378,985	618,270	2043,857	246,540	914,817	35,194
A	2009	r-PEL_TRAW	none	23,821	2,164	0,000	0,000	2,675	0,141	5,654	1,550	6,486	2,658	8,221	1,060	2,995	0,151
A	2009	r-TRAMMEL	none	404,346	22,447	0,000	0,000	8,995	11,975	6,644	37,399	19,747	22,752	49,571	3,653	44,415	0,109
A	2010	GILL	none	10,311	0,000	0,000	0,000	0,007	0,000	1,933	0,000	3,354	0,000	2,334	0,000	0,922	0,000
A	2010	none	none	62,566	0,000	0,000	0,000	0,526	0,000	18,696	0,000	19,694	0,000	11,839	0,000	5,142	0,000
A	2010	OTTER	none	30,343	49,363	0,000	0,000	0,000	0,000	1,645	0,000	3,972	0,000	4,563	0,000	3,308	0,000
A	2010	PEL_TRAWL	none	65,755	0,000	0,000	0,000	0,014	0,000	16,017	0,000	15,995	0,000	7,044	0,000	4,573	0,000
A	2010	POTS	none	102,277	0,000	0,000	0,000	0,053	0,000	31,279	0,000	43,507	0,000	29,752	0,000	10,047	0,000
A	2010	TRAMMEL	none	0,518	0,000	0,000	0,000	0,000	0,000	0,055	0,000	0,180	0,000	0,115	0,000	0,059	0,000
A	2010	r-DEM_SEIN	none	481,093	85,135	0,000	0,000	0,000	1,288	79,373	93,963	147,026	109,632	154,697	39,362	71,078	4,311
A	2010	r-GILL	none	3655,238	199,794	0,000	3,434	13,929	51,232	781,066	259,641	925,521	266,784	613,217	72,112	312,453	7,133
A	2010	r-LONGLINE	none	315,807	0,000	0,000	0,000	0,239	0,000	83,194	0,000	89,773	0,000	62,454	0,000	28,094	0,000
A	2010	r-OTTER	BACOMA	3199,417	635,266	0,000	0,000	52,748	647,978	1494,484	975,888	994,199	58,206	260,027	0,000	64,698	0,000
A	2010	r-OTTER	none	4562,303	964,992	0,000	0,006	1,912	15,937	840,136	1082,751	1416,354	1245,651	1259,741	444,775	606,947	48,706
A	2010	r-OTTER	T90	44,805	4,304	0,000	0,000	1,202	4,487	20,933	6,734	13,174	0,349	3,954	0,000	1,057	0,000
A	2010	r-PEL_TRAW	none	36,408	6,339	0,000	0,000	0,000	0,096	7,078	6,997	11,663	8,163	11,342	2,931	5,367	0,321
A	2010	r-TRAMMEL	none	490,012	39,351	0,000	0,032	2,416	2,570	55,942	54,051	64,846	58,105	57,390	15,746	51,157	1,559
A	2011	GILL	none	8,886	0,078	0,000	0,000	0,000	0,018	0,156	0,075	1,638	0,055	3,143	0,000	1,079	0,000
A	2011	none	none	46,687	0,000	0,000	0,000	0,000	0,000	0,872	0,000	12,342	0,000	14,653	0,000	7,264	0,000
A	2011	OTTER	none	68,568	0,000	0,000	0,000	0,000	0,000	0,956	0,000	15,114	0,000	24,488	0,000	8,227	0,000
A	2011	PEL_TRAWL	none	43,041	16,305	0,000	0,000	0,032	2,364	5,266	19,019	16,413	13,815	12,322	0,359	3,140	0,000
A	2011	POTS	none	56,807	1,138	0,000	0,000	0,000	0,493	3,428	1,273	26,299	0,286	18,477	0,003	4,089	0,000
A	2011	TRAMMEL	none	0,236	0,000	0,000	0,000	0,000	0,000	0,002	0,000	0,050	0,000	0,093	0,000	0,030	0,000
A	2011	r-DEM_SEIN	none	388,043	41,812	0,000	0,000	0,000	0,022	2,207	3,566	66,064	46,463	159,704	55,485	77,599	6,550
A	2011	r-GILL	none	3498,519	48,298	0,000	0,000	8,396	32,418	320,085	63,589	1009,718	24,838	773,023	0,731	277,468	0,195
A	2011	r-LONGLINE	none	441,707	6,041	0,000	0,000	0,000	2,017	28,395	7,663	130,567	3,560	118,013	0,081	61,089	0,041
A	2011	r-OTTER	BACOMA	4597,402	1001,577	0,000	0,000	84,873	335,143	1850,980	1284,899	2027,690	519,243	481,701	11,695	92,519	0,000
A	2011	r-OTTER	none	5569,917	694,780	0,000	0,000	0,219	0,445	98,798	59,595	1310,138	771,963	2113,085	921,707	1076,486	108,814
A	2011	r-OTTER	T90	149,196	64,834	0,000	0,000	0,000	12,178	49,083	80,762	74,244	41,872	27,446	0,448	5,934	0,000
A	2011	r-PEL_TRAW	BACOMA	18,285	6,034	0,000	0,000	0,000	0,334	1,812	7,567	12,388	5,026	4,338	0,020	0,864	0,000
A	2011	r-PEL_TRAW	none	0,096	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,009	0,000	0,040	0,000	0,008	0,000
A	2011	r-TRAMMEL	none	543,574	1,661	0,000	0,000	0,000	0,702	11,687	2,139	80,843	0,879	131,043	0,019	40,333	0,005
A	2012	GILL	none	4,553	0,069	0,000	0,000	0,000	0,082	0,466	0,039	1,336	0,015	1,184	0,007	0,579	0,000
A	2012	none	none	62,651	0,000	0,000	0,000	0,000	0,000	1,087	0,000	10,676	0,000	28,272	0,000	15,091	0,000
A	2012	OTTER	none	16,389	0,367	0,000	0,000	0,000	0,019	0,633	0,130	1,868	0,377	4,252	0,344	3,055	0,031

Table 5.1.3.5 continued.

A	2012	PEL_TRAWL	none	10,774	1,477	0,000	0,000	0,000	0,045	1,010	1,494	2,404	1,454	4,841	0,606	1,809	0,078
A	2012	POTS	none	50,143	0,847	0,000	0,000	0,000	1,543	2,783	0,699	17,430	0,096	19,855	0,057	9,105	0,000
A	2012	TRAMMEL	none	0,201	0,000	0,000	0,000	0,000	0,000	0,011	0,000	0,051	0,000	0,067	0,000	0,041	0,000
A	2012	r-DEM_SEIN	none	437,903	8,740	0,000	0,000	0,000	0,068	7,779	1,747	104,453	9,791	186,686	9,033	91,594	0,832
A	2012	r-GILL	none	3836,835	60,582	0,000	6,050	71,804	68,528	698,417	73,525	660,471	20,534	925,538	6,672	418,819	0,726
A	2012	r-LONGLINE	none	476,250	7,161	0,000	0,000	0,000	9,184	28,142	6,155	92,612	2,643	215,492	1,497	82,615	0,182
A	2012	r-OTTER	BACOMA	4015,657	331,956	0,000	3,961	218,386	104,727	962,984	355,818	1310,275	243,595	1188,712	70,960	141,655	8,942
A	2012	r-OTTER	none	6262,260	324,825	0,000	0,000	0,000	2,455	45,139	76,068	1106,915	363,408	3216,977	323,628	1483,365	29,627
A	2012	r-OTTER	T90	172,840	39,223	0,000	0,000	0,000	1,683	9,024	40,541	42,476	37,540	109,162	15,669	23,961	1,973
A	2012	r-PEL_TRAW	none	0,568	0,022	0,000	0,000	0,000	0,000	0,000	0,004	0,062	0,024	0,431	0,022	0,180	0,002
A	2012	r-TRAMMEL	none	715,763	15,743	0,000	0,095	0,326	13,068	11,897	27,892	46,167	3,378	81,319	0,719	110,410	0,019
B	2003	GILL	none	31,528	0,000	0,000	0,000	0,000	0,000	1,571	0,000	15,189	0,000	11,032	0,000	1,577	0,000
B	2003	none	none	1238,725	0,000	0,000	0,000	0,000	0,000	132,161	0,000	544,132	0,000	342,507	0,000	96,809	0,000
B	2003	OTTER	none	64,638	0,000	0,000	0,000	0,000	0,000	7,472	0,000	41,982	0,000	16,308	0,000	2,612	0,000
B	2003	PEL_TRAWL	none	98,249	0,000	0,000	0,000	0,000	0,000	14,071	0,000	60,629	0,000	22,583	0,000	5,088	0,000
B	2003	r-TRAMMEL	none	13,143	0,407	0,000	0,000	0,000	0,000	0,584	0,000	5,941	0,000	4,617	0,000	0,870	0,000
B	2003	r-DEM_SEIN	none	7,459	0,000	0,000	0,000	0,000	0,000	5,328	0,000	4,115	0,000	0,496	0,000	0,073	0,000
B	2003	r-GILL	none	8120,135	197,911	0,000	0,000	0,000	0,000	1056,765	19,230	2350,174	38,983	2080,705	21,291	1182,381	10,831
B	2003	r-LONGLINE	none	1294,942	34,086	0,000	0,000	0,000	0,000	87,150	0,000	356,529	0,000	295,695	0,000	129,524	0,000
B	2003	r-OTTER	BACOMA	4245,679	550,258	0,000	0,000	0,000	7,514	2,437	182,925	446,544	1007,852	1982,102	258,804	1599,822	4,406
B	2003	r-OTTER	none	9723,659	2061,095	0,000	0,000	186,754	841,772	1912,766	2944,511	5254,801	1539,552	2313,363	0,000	692,708	0,000
B	2003	r-PEL_TRAW	none	170,383	44,462	0,000	0,000	0,000	17,657	15,857	63,172	100,825	34,406	49,832	0,000	13,131	0,000
B	2003	r-TRAMMEL	none	13,143	0,407	0,000	0,000	0,000	0,000	0,584	0,000	5,941	0,000	4,617	0,000	0,870	0,000
B	2004	GILL	none	55,110	0,000	0,000	0,000	0,000	0,000	1,592	0,000	16,013	0,000	19,629	0,000	4,892	0,000
B	2004	none	none	1104,282	0,000	0,000	0,000	0,000	0,000	59,085	0,000	360,377	0,000	374,332	0,000	83,013	0,000
B	2004	OTTER	none	128,921	0,000	0,000	0,000	0,000	0,000	7,340	0,000	57,671	0,000	46,040	0,000	6,967	0,000
B	2004	PEL_TRAWL	none	515,735	0,000	0,000	0,000	0,000	0,000	58,095	0,000	243,399	0,000	169,956	0,000	24,031	0,000
B	2004	r-DEM_SEIN	none	0,303	0,000	0,000	0,000	0,000	0,000	0,011	0,000	0,188	0,000	0,116	0,000	0,011	0,000
B	2004	r-GILL	none	12122,992	365,897	0,000	0,000	0,000	12,740	168,172	76,237	2467,915	236,639	4214,353	66,474	2172,492	37,373
B	2004	r-LONGLINE	none	3576,300	48,032	0,000	0,000	0,000	0,000	284,670	0,000	1256,400	0,000	1037,213	0,000	220,499	0,000
B	2004	r-OTTER	BACOMA	13120,166	735,572	0,000	0,000	0,000	0,000	0,000	405,200	1439,184	1112,037	4091,680	250,888	3083,751	4,392
B	2004	r-OTTER	none	3899,472	252,222	0,000	0,000	0,000	102,557	358,008	348,679	1948,481	171,779	1463,408	2,755	208,698	0,000
B	2004	r-PEL_TRAW	BACOMA	2030,425	55,618	0,000	0,000	0,000	0,000	1,005	21,237	323,172	91,154	888,683	0,145	286,590	0,000
B	2004	r-PEL_TRAW	none	416,153	32,008	0,000	0,000	11,760	13,015	11,212	44,251	70,797	21,800	59,906	0,352	10,045	0,000
B	2004	r-TRAMMEL	none	9,736	0,134	0,000	0,000	0,000	0,000	0,182	0,000	2,575	0,000	3,919	0,000	0,842	0,000
B	2005	GILL	none	89,315	0,552	0,000	0,000	0,000	0,000	8,142	0,000	19,954	0,000	29,404	0,000	12,260	0,000
B	2005	none	none	45,994	0,000	0,000	0,000	0,000	0,000	3,088	0,000	18,234	0,000	22,121	0,000	4,148	0,000
B	2005	OTTER	none	129,049	0,000	0,000	0,000	0,000	0,000	14,571	0,000	44,941	0,000	52,465	0,000	12,033	0,000
B	2005	PEL_TRAWL	none	661,256	0,000	0,000	0,000	0,000	0,000	82,517	0,000	240,106	0,000	272,651	0,000	59,921	0,000
B	2005	POTS	none	0,427	0,000	0,000	0,000	0,000	0,000	0,034	0,000	0,166	0,000	0,213	0,000	0,047	0,000
B	2005	r-DEM_SEIN	none	161,643	0,000	0,000	0,000	0,000	0,000	66,131	0,000	58,650	0,000	28,336	0,000	8,664	0,000
B	2005	r-GILL	none	8561,637	272,902	0,000	0,000	0,000	0,000	354,695	40,525	2387,492	166,510	3149,161	61,044	1246,451	11,258
B	2005	r-LONGLINE	none	3274,410	56,157	0,000	0,000	0,000	0,159	395,872	0,000	1334,551	23,699	1059,401	0,000	270,086	0,000
B	2005	r-OTTER	BACOMA	10796,252	1035,666	0,000	0,000	0,000	13,221	86,211	944,119	2879,072	1230,591	3892,831	322,075	2493,484	40,789
B	2005	r-OTTER	none	3763,402	304,250	0,000	0,000	0,000	117,283	792,526	707,369	1431,798	97,845	1288,979	0,000	277,595	0,000
B	2005	r-PEL_TRAW	none	323,544	22,564	0,000	0,000	8,617	25,306	150,592	35,220	76,179	3,151	50,407	0,000	8,996	0,000
B	2005	r-TRAMMEL	none	3,191	0,017	0,000	0,000	0,000	0,000	0,521	0,000	0,752	0,000	0,664	0,000	0,299	0,000
B	2006	GILL	none	58,208	0,000	0,000	0,000	0,000	0,000	4,733	0,000	29,625	0,000	13,514	0,000	4,317	0,000
B	2006	none	none	95,366	0,000	0,000	0,000	0,000	0,000	8,218	0,000	51,977	0,000	21,091	0,000	6,123	0,000
B	2006	OTTER	none	57,044	0,000	0,000	0,000	0,000	0,000	6,324	0,000	40,169	0,000	14,542	0,000	3,335	0,000
B	2006	PEL_TRAWL	none	375,971	0,000	0,000	0,000	0,000	0,000	56,988	0,000	266,235	0,000	86,029	0,000	19,695	0,000
B	2006	r-DEM_SEIN	none	85,156	0,000	0,000	0,000	0,000	0,000	7,874	0,000	56,869	0,000	23,479	0,000	5,463	0,000
B	2006	r-GILL	none	8078,003	310,869	0,000	0,000	0,000	2,112	265,433	31,488	2931,962	172,236	2472,701	210,281	1694,074	14,490
B	2006	r-LONGLINE	none	3781,001	0,000	0,000	0,000	0,000	0,000	320,795	0,000	1975,799	0,000	1128,439	0,000	299,642	0,000
B	2006	r-OTTER	BACOMA	13270,645	2152,157	0,000	0,000	0,000	1,715	408,876	1334,366	5345,561	3625,404	5573,658	254,314	2313,141	42,629
B	2006	r-OTTER	none	6804,347	843,576	0,000	0,000	0,000	5,124	745,305	483,356	4928,197	1599,919	1927,948	132,678	426,729	0,000
B	2006	r-PEL_TRAW	BACOMA	4478,501	630,208	0,000	0,000	0,000	0,876	99,520	234,945	3273,450	1318,442	1378,261	22,686	294,636	0,000
B	2006	r-TRAMMEL	none	4,476	0,000	0,000	0,000	0,000	0,000	0,592	0,000	2,296	0,000	0,769	0,000	0,270	0,000
B	2007	GILL	none	40,493	0,000	0,000	0,000	0,000	0,000	0,063	0,000	2,528	0,000	14,784	0,000	11,165	0,000
B	2007	none	none	18,756	0,000	0,000	0,000	0,000	0,000	0,149	0,000	2,011	0,000	8,989	0,000	5,466	0,000
B	2007	OTTER	none	28,813	0,000	0,000	0,000	0,000	0,000	0,170	0,000	3,458	0,000	15,348	0,000	9,339	0,000
B	2007	PEL_TRAWL	none	504,949	0,000	0,000	0,000	0,000	0,000	2,091	0,000	52,181	0,000	261,264	0,000	172,379	0,000
B	2007	POTS	none	0,323	0,000	0,000	0,000	0,000	0,000	0,006	0,000	0,054	0,000	0,161	0,000	0,066	0,000
B	2007	r-DEM_SEIN	none	46,469	0,000	0,000	0,000	0,000	0,000	0,000	0,000	4,328	0,000	25,058	0,000	15,757	0,000
B	2007	r-GILL	none	6208,746	498,907	0,000	0,000	0,000	48,173	37,625	218,950	978,365	208,825	2499,211	75,159	1471,979	69,180
B	2007	r-LONGLINE	none	2113,310	0,000	0,000	0,000	0,000	0,000	3,725	0,000	350,248	0,000	1039,613	0,000	414,076	0,000
B	2007	r-OTTER	BACOMA	10612,297	2020,333	0,000	0,000	0,000	0,000	30,871	639,470	1568,782	2217,177	3377,864	153,357	3625,667	0,000
B	2007	r-OTTER	none	5386,859	642,141	0,000	0,000	0,000	2,747	34,925	99,967	673,803	549,734	3128,276	672,518	1853,047	195,106
B	2007	r-PEL_TRAW	BACOMA	3800,237	377,237	0,000	0,000	209,301	230,404	636,694	374,342	1226,690	262,764	1731,113	29,689	224,482	0,000
B	2007	r-PEL_TRAW	none	2101,460	221,193	0,000	0,000	0,000	0,952	0,167	34,436	220,150	189,362	1186,120	231,663	797,716	67,211

Table 5.1.3.5 continued.

B	2007	r-TRAMMEL	none	38,160	0,000	0,000	0,000	0,000	0,000	0,084	0,000	2,239	0,000	13,555	0,000	10,708	0,000
B	2008	DREDGE	none	6,043	0,000	0,000	0,000	0,000	0,000	0,041	0,000	0,873	0,000	2,815	0,000	2,713	0,000
B	2008	GILL	none	8,637	0,000	0,000	0,000	0,000	0,000	0,126	0,000	1,084	0,000	1,898	0,000	2,216	0,000
B	2008	none	none	9,675	0,000	0,000	0,000	0,000	0,000	0,151	0,000	2,076	0,000	3,098	0,000	2,496	0,000
B	2008	OTTER	none	20,495	0,000	0,000	0,000	0,000	0,000	0,361	0,000	4,907	0,000	8,598	0,000	7,096	0,000
B	2008	PEL_TRAWL	none	396,640	0,000	0,000	0,000	0,000	0,000	9,281	0,000	89,703	0,000	150,847	0,000	131,912	0,000
B	2008	r-GILL	none	7791,219	266,605	0,000	0,000	0,000	1,838	28,776	166,189	1863,144	239,703	2150,026	66,735	2096,495	32,379
B	2008	r-LONGLINE	none	1754,144	3,880	0,000	0,000	0,000	0,000	6,156	0,000	472,553	0,000	770,126	0,000	249,890	0,000
B	2008	r-OTTER	BACOMA	11916,364	1098,417	0,000	0,000	149,288	153,732	1590,381	850,014	4472,054	1395,370	4782,521	144,907	1471,002	24,575
B	2008	r-OTTER	none	6093,474	337,800	0,000	0,000	0,000	0,418	122,572	42,342	1415,644	300,478	2407,057	294,112	2026,280	121,774
B	2008	r-PEL_TRAW	BACOMA	1112,369	113,342	0,000	0,000	30,223	33,868	333,656	153,861	517,845	83,980	208,626	9,668	60,510	0,601
B	2008	r-TRAMMEL	none	28,353	0,000	0,000	0,000	0,000	0,000	0,373	0,000	6,999	0,000	8,219	0,000	5,084	0,000
B	2009	GILL	none	2,989	0,171	0,000	0,000	0,000	0,000	0,000	0,171	0,279	0,171	0,880	0,000	0,797	0,000
B	2009	OTTER	none	34,614	3,878	0,000	0,000	0,000	0,385	0,112	5,441	4,327	4,533	13,636	0,289	9,847	0,000
B	2009	PEL_TRAWL	none	413,476	36,176	0,000	0,000	0,000	1,349	0,079	42,467	36,843	51,154	134,141	2,435	112,782	0,000
B	2009	r-GILL	none	9062,544	369,035	0,000	0,000	0,000	59,662	255,722	626,162	1712,125	384,337	2405,398	20,321	2054,033	6,159
B	2009	r-LONGLINE	none	1255,514	90,493	0,000	0,000	0,000	21,621	104,921	176,558	478,484	84,196	310,710	2,415	143,953	0,000
B	2009	r-OTTER	BACOMA	18071,000	2052,499	0,000	0,000	24,610	215,044	764,414	2449,634	8085,416	2539,333	8059,779	254,711	2077,618	9,056
B	2009	r-OTTER	none	7133,436	525,734	0,000	0,000	0,000	1,103	50,114	83,422	1658,670	499,746	3337,205	482,191	2162,661	141,325
B	2009	r-PEL_TRAW	BACOMA	2376,819	188,702	0,000	0,000	3,954	11,474	111,875	124,260	833,189	203,856	923,997	66,395	317,687	7,510
B	2009	r-TRAMMEL	none	70,443	0,466	0,000	0,000	0,000	0,277	0,031	1,103	3,927	0,129	17,374	0,037	18,677	0,000
B	2010	GILL	none	1,239	0,000	0,000	0,000	0,000	0,000	0,096	0,000	0,529	0,000	0,405	0,000	0,086	0,000
B	2010	none	none	1,816	0,000	0,000	0,000	0,000	0,000	0,017	0,000	0,276	0,000	0,725	0,000	0,485	0,000
B	2010	OTTER	none	11,199	0,000	0,000	0,000	0,000	0,000	0,694	0,000	4,431	0,000	4,491	0,000	1,296	0,000
B	2010	PEL_TRAWL	none	273,136	211,914	0,000	0,000	0,000	0,000	5,987	0,000	69,558	0,000	119,341	0,000	37,076	0,000
B	2010	POTS	none	7,641	0,000	0,000	0,000	0,000	0,000	0,557	0,000	2,995	0,000	2,659	0,000	0,728	0,000
B	2010	r-GILL	none	7706,365	712,828	0,000	0,000	0,000	181,799	248,873	1128,392	2034,126	870,209	2896,642	156,689	1205,142	0,000
B	2010	r-LONGLINE	none	1949,737	254,215	0,000	0,000	0,000	27,354	35,755	352,314	606,979	332,342	823,338	23,476	254,530	0,456
B	2010	r-OTTER	BACOMA	21588,374	2127,636	0,000	0,000	0,000	310,719	966,903	2839,646	8693,222	2598,773	9983,226	185,949	2276,169	3,118
B	2010	r-OTTER	none	10124,523	611,447	0,000	0,000	0,000	5,291	55,491	100,314	1256,954	381,637	5679,440	784,581	3226,323	186,687
B	2010	r-OTTER	T90	886,700	74,835	0,000	0,000	0,000	16,033	52,274	117,621	348,701	56,324	374,120	4,291	81,793	0,068
B	2011	DEM_SEINE	none	1,082	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,101	0,000	0,495	0,000	0,504	0,000
B	2011	GILL	none	13,711	0,757	0,000	0,000	0,000	0,142	1,645	1,372	9,120	0,193	3,280	0,000	0,654	0,000
B	2011	OTTER	none	35,161	5,386	0,000	0,000	0,000	0,992	9,929	9,779	17,863	2,317	6,354	0,034	3,774	0,000
B	2011	PEL_TRAWL	none	315,074	32,737	0,000	0,000	0,000	6,456	65,506	60,562	220,961	12,951	54,011	0,127	13,793	0,000
B	2011	POTS	none	2,700	0,206	0,000	0,000	0,000	0,071	0,404	0,429	1,740	0,034	0,605	0,000	0,136	0,000
B	2011	r-DEM_SEIN	none	93,312	0,000	0,000	0,000	0,000	0,000	0,000	0,000	4,575	0,000	33,279	0,000	42,322	0,000
B	2011	r-GILL	none	6173,926	319,345	0,000	0,000	0,000	129,171	547,427	611,833	2552,157	87,671	2037,039	1,856	997,704	1,951
B	2011	r-LONGLINE	none	1603,978	72,465	0,000	0,000	0,000	13,272	184,832	133,072	764,367	38,907	508,672	0,589	197,607	0,200
B	2011	r-OTTER	BACOMA	20021,413	3311,837	0,000	0,000	32,272	273,825	3984,488	5083,217	11338,987	2533,254	5566,180	119,413	1881,637	12,001
B	2011	r-OTTER	none	10490,397	889,470	0,000	0,000	0,000	2,063	9,379	62,776	1204,313	694,894	4423,991	1226,073	4604,909	362,276
B	2011	r-OTTER	T90	1145,249	277,341	0,000	0,000	0,000	12,003	168,884	427,147	952,817	218,338	215,263	1,419	23,276	0,000
B	2011	r-PEL_TRAW	BACOMA	3183,896	633,439	0,000	0,000	98,789	146,066	1360,286	924,228	1998,537	459,687	417,126	9,888	49,081	0,164
B	2011	r-PEL_TRAW	none	68,634	4,787	0,000	0,000	0,000	0,011	0,000	0,338	2,963	3,739	24,862	6,599	32,813	1,951
B	2011	r-PEL_TRAW	T90	23,938	7,493	0,000	0,000	0,000	0,049	2,451	10,979	20,953	6,589	4,960	0,004	0,401	0,000
B	2011	r-TRAMMEL	none	1,538	0,000	0,000	0,000	0,000	0,000	0,002	0,000	0,135	0,000	0,507	0,000	0,511	0,000
B	2012	GILL	none	5,263	0,000	0,000	0,000	0,000	0,000	0,000	0,000	1,815	0,000	2,003	0,000	0,115	0,000
B	2012	none	none	184,128	0,000	0,000	0,000	0,000	0,000	0,083	0,000	11,425	0,000	85,362	0,000	93,005	0,000
B	2012	OTTER	none	23,730	5,929	0,000	0,000	0,000	0,175	2,236	4,740	20,362	8,823	6,498	2,114	1,083	0,000
B	2012	PEL_TRAWL	none	55,798	17,130	0,000	0,000	0,000	0,082	1,259	5,167	39,147	34,663	26,943	7,367	3,727	0,002
B	2012	POTS	none	1,052	0,033	0,000	0,000	0,000	0,025	0,038	0,035	0,501	0,043	0,494	0,005	0,129	0,000
B	2012	r-DEM_SEIN	none	257,080	0,000	0,000	0,000	0,000	0,000	0,000	0,000	14,338	0,000	136,754	0,000	155,468	0,000
B	2012	r-GILL	none	5868,838	366,326	0,000	0,000	0,000	184,577	190,993	229,049	2072,650	273,597	1870,805	125,369	1081,324	124,277
B	2012	r-LONGLINE	none	1085,295	42,137	0,000	0,000	0,000	23,980	51,727	28,929	562,240	57,001	413,948	19,256	154,357	0,545
B	2012	r-OTTER	BACOMA	14979,899	3577,229	0,000	0,000	0,000	39,256	829,551	1252,610	8910,497	5665,798	4990,605	1763,891	1341,699	449,610
B	2012	r-OTTER	none	20418,548	2763,958	0,000	0,000	0,000	8,774	162,732	530,606	4555,018	2346,346	10961,636	2650,029	8953,221	1369,514
B	2012	r-OTTER	T90	752,612	229,499	0,000	0,000	0,000	3,871	43,951	104,657	579,521	402,450	296,209	96,155	49,003	2,053
B	2012	r-PEL_TRAW	BACOMA	1158,093	200,851	0,000	0,000	0,000	1,734	118,507	81,013	534,927	375,861	415,564	54,870	98,779	0,110
B	2012	r-PEL_TRAW	none	108,386	15,292	0,000	0,000	0,000	0,092	0,316	2,665	12,760	13,410	65,149	14,825	58,022	7,595
C	2010	r-GILL	none	41,104	0,000	0,000	0,371	2,209	7,635	3,674	1,250	0,000	1,544	2,075	0,515	0,032	0,000
C	2011	r-GILL	none	59,892	0,000	0,000	0,363	7,114	8,473	4,574	3,427	0,000	0,713	6,826	1,236	0,001	0,010
C	2012	OTTER	none	0,500	0,000	0,000	0,000	0,050	0,080	0,044	0,023	0,000	0,039	0,036	0,015	0,002	0,000
C	2012	r-GILL	none	65,513	0,000	0,000	0,003	0,958	5,282	5,497	1,903	0,000	0,622	1,406	3,044	0,523	0,014
A	2012	PEL_TRAWL	FDFBAL	0,071	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,006	0,000	0,047	0,000	0,023	0,000
A	2012	r-DEM_SEIN	FDFBAL	256,520	0,519	0,000	0,000	0,000	0,004	6,379	0,104	76,209	0,581	98,828	0,536	48,519	0,050
A	2012	r-OTTER	FDFBAL	76,642	4,654	0,000	0,000	0,000	0,037	0,902	0,929	25,494	5,215	49,338	4,811	17,556	0,442
B	2012	PEL_TRAWL	FDFBAL	0,008	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,001	0,000	0,007	0,000	0,005	0,000
B	2012	r-OTTER	FDFBAL	404,892	36,693	0,000	0,000	0,000	0,167	0,490	2,642	37,005	16,667	224,276	46,657	211,689	25,983
B	2012	r-PEL_TRAW	FDFBAL	1,436	0,174	0,000	0,000	0,000	0,001	0,000	0,013	0,075	0,079	0,822	0,221	0,863	0,123

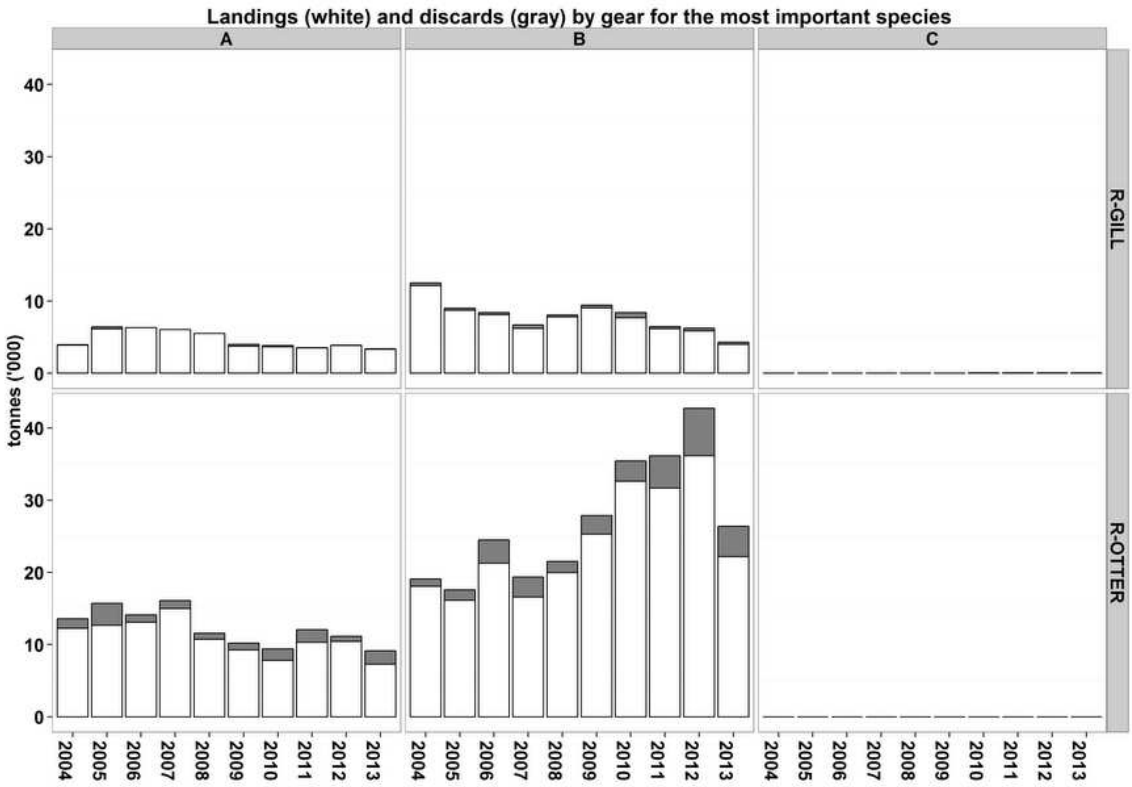


Figure 5.1.3.1. Catch and landings in tonnes of Baltic cod by area and gear category 2003-2013. Upper panels represent regulated gillnets, lower panels regulated otter trawls in accordance with R(EC) 1098/2007 (see Section 2.6). White bars show landings, dark bars discards.

5.1.4 Tor 1.d Catches (landings and discards) of non-cod species in weight and numbers at age by area, Member State and fisheries

The information on landings and discards of major NON-COD species by the ages, gear types and fishing areas is presented in the Table 5.1.4.1. Since the EWG 14-13 was not provided with new information by ages, the table was not updated with 2013 data. The Tables 5.1.4.2-4 provide the most recent information by area, and gear type on total landings and discards of flounder, plaice, herring and sprat, respectively. The Table 5.1.4.5 presents the available information on discard rates for main pelagic species of the Baltic Sea-herring and sprat. According to the data uploaded by Member States during the 2014 effort data call the discarding rate of pelagics is generally low. So for herring in area A only the regulated otter trawl without SPECON showed consistent discard rates. However, according to quality index the discard data provided for this segment of fishery can be regarded as covered by a high proportion of landings with discard information (>66%) for 3 years only. For areas B and C the discarding rate in otter trawl fishery has been low. Some discarding has been reported also for gillnet fishery in all areas. The coverage of landings with discard information however remained in most cases below 33%.

For sprat the consistent but low-level discarding was reported for gillnet fishery in area C.

Table 5.1.4.1. Major non-cod species caught at ages 1-9 (thousands) in landings, discards and discard rates in the Baltic by area, gears (r- indicates regulated gears). Please note that data is only for 2012. Complete data is available in electronic appendices.

REG_AREA	SPECIES	REG_GEAR	SPECON	Landings t	Discards t	AGE 0L	AGE 0D	AGE 1L	AGE 1D	AGE 2L	AGE 2D	AGE 3L	AGE 3D	AGE 4L	AGE 4D	AGE 5L	AGE 5D	AGE 6L	AGE 6D	AGE 7L	AGE 7D	AGE 8L	AGE 8D	AGE 9L	AGE 9D
28.2	FLX	POTS	none	0,423	0,027	0,000	0,000	0,000	0,033	0,000	0,339	0,055	0,266	0,633	0,000	0,585	0,000	0,601	0,000	0,519	0,000	0,246	0,000	0,091	0,000
28.2	FLX	r-GILL	none	4,508	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,438	0,000	2,191	0,000	4,390	0,000	2,197	0,000	4,245	0,000	2,098	0,000	1,460	0,000
28.2	FLX	r-DEM_SEINE	none	114,310	2,772	0,000	0,000	0,000	0,000	0,000	0,000	0,000	33,951	84,119	0,000	168,234	0,000	182,256	0,000	56,077	0,000	112,158	0,000	28,038	0,000
28.2	FLX	r-OTTER	BACOMA	93,301	0,000	0,000	0,000	0,000	0,000	0,000	0,000	3,042	0,000	10,349	0,000	19,965	0,000	20,161	0,000	31,318	0,000	56,782	0,000	31,843	0,000
28.2	HER	PEL_TRAWL	none	2630,702	0,000	3,590	0,000	4093,739	0,000	2804,143	0,000	2771,248	0,000	9244,577	0,000	15359,600	0,000	8990,991	0,000	5857,850	0,000	2952,326	0,000	3515,101	0,000
28.2	SPR	PEL_TRAWL	none	31526,988	0,000	106743,621	0,000	523031,797	0,000	753448,290	0,000	346186,417	0,000	1074120,932	0,000	154617,911	0,000	121371,196	0,000	75554,414	0,000	70442,862	0,000	0,000	0,000
A	FLX	GILL	none	4,948	0,000	0,000	0,000	0,000	0,000	0,547	0,000	3,053	0,000	4,427	0,000	1,711	0,000	1,931	0,000	0,027	0,000	0,018	0,000	0,000	0,000
A	FLX	none	none	8,739	0,000	0,000	0,000	0,173	0,000	8,619	0,000	6,250	0,000	4,984	0,000	1,680	0,000	1,352	0,000	0,078	0,000	0,069	0,000	0,000	0,000
A	FLX	OTTER	none	1,787	0,101	0,000	0,000	0,099	0,005	3,569	0,095	1,718	0,105	0,387	0,083	0,000	0,021	0,000	0,012	0,000	0,003	0,000	0,001	0,000	0,001
A	FLX	PEL_TRAWL	none	0,526	0,000	0,000	0,000	0,000	0,000	0,011	0,000	0,305	0,000	0,492	0,000	0,281	0,000	0,053	0,000	0,025	0,000	0,037	0,000	0,036	0,000
A	FLX	POTS	none	18,015	0,000	0,000	0,000	0,398	0,000	14,846	0,000	12,034	0,000	11,860	0,000	5,279	0,000	2,903	0,000	0,729	0,000	0,225	0,000	0,000	0,000
A	FLX	TRAMMEL	none	0,362	0,000	0,000	0,000	0,000	0,000	0,545	0,000	0,304	0,000	0,080	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
A	FLX	r-DEM_SEINE	none	15,248	92,981	0,000	0,000	0,277	4,606	17,828	87,391	13,449	97,400	6,573	76,400	4,642	19,641	1,644	11,298	0,610	3,284	0,138	1,106	0,000	1,275
A	FLX	r-GILL	none	701,406	1450,170	0,000	0,000	0,000	0,000	201,566	0,000	322,741	0,000	446,243	0,000	593,049	0,000	128,164	0,000	61,750	0,000	50,101	0,000	24,467	0,000
A	FLX	r-LONGLINE	none	2,076	0,000	0,000	0,000	0,037	0,000	0,875	0,000	1,170	0,000	1,619	0,000	0,919	0,000	0,306	0,000	0,459	0,000	0,000	0,000	0,000	0,000
A	FLX	r-OTTER	none	1326,337	1453,431	0,000	0,000	29,661	70,482	1783,614	1590,127	1165,829	1490,069	672,864	1168,796	289,176	300,478	77,935	172,836	42,587	50,248	15,872	16,877	12,700	19,461
A	FLX	r-TRAMMEL	none	70,284	79,008	0,000	0,000	0,098	0,000	78,127	0,000	57,495	0,000	28,517	0,000	9,334	0,000	8,429	0,000	0,571	0,000	0,154	0,000	0,167	0,000
A	HER	GILL	none	4795,301	0,000	0,000	0,000	0,000	0,000	0,000	0,000	400,226	0,000	176,878	0,000	16142,230	0,000	7224,000	0,000	2828,534	0,000	33,688	0,000	0,000	0,000
A	HER	PEL_TRAWL	none	12041,400	0,000	0,000	0,000	15993,815	0,000	59175,725	0,000	54972,984	0,000	17136,669	0,000	8985,206	0,000	3225,371	0,000	4736,072	0,000	185,199	0,000	410,489	0,000
A	HER	POTS	none	385,349	0,000	0,000	0,000	0,000	0,000	1115,417	0,000	1028,608	0,000	1132,645	0,000	676,836	0,000	291,292	0,000	88,961	0,000	23,364	0,000	48,371	0,000
A	PLE	GILL	none	0,868	0,000	0,000	0,000	0,000	0,000	0,124	0,000	1,213	0,000	0,552	0,000	0,164	0,000	0,105	0,000	0,047	0,000	0,022	0,000	0,010	0,000
A	PLE	none	none	4,087	0,000	0,000	0,000	0,005	0,000	1,874	0,000	5,075	0,000	2,778	0,000	0,414	0,000	0,166	0,000	0,051	0,000	0,023	0,000	0,061	0,000
A	PLE	OTTER	none	2,996	0,049	0,000	0,000	0,006	0,003	2,445	0,087	3,638	0,083	1,586	0,028	0,262	0,002	0,024	0,000	0,006	0,000	0,003	0,000	0,009	0,000
A	PLE	PEL_TRAWL	none	1,193	0,000	0,000	0,000	0,000	0,000	0,114	0,000	2,216	0,000	1,205	0,000	0,375	0,000	0,035	0,000	0,005	0,000	0,002	0,000	0,000	0,000
A	PLE	POTS	none	1,560	0,000	0,000	0,000	0,029	0,000	0,968	0,000	1,711	0,000	0,678	0,000	0,306	0,000	0,152	0,000	0,160	0,000	0,032	0,000	0,007	0,000
A	PLE	TRAMMEL	none	0,082	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,079	0,000	0,086	0,000	0,003	0,000	0,003	0,000	0,000	0,000	0,000	0,000	0,006	0,000
A	PLE	r-DEM_SEINE	none	23,310	55,635	0,000	0,000	0,221	5,493	8,687	113,100	28,319	147,272	11,308	15,154	5,484	1,066	3,063	0,000	2,261	0,000	0,858	0,102	0,086	0,000
A	PLE	r-GILL	none	409,970	162,403	0,000	0,000	0,694	7,934	138,407	113,036	498,225	274,203	259,870	126,991	50,619	6,147	29,342	0,337	13,240	0,000	5,797	0,000	5,334	0,000
A	PLE	r-LONGLINE	none	0,021	0,000	0,000	0,000	0,000	0,000	0,001	0,000	0,062	0,000	0,007	0,000	0,002	0,000	0,001	0,000	0,001	0,000	0,000	0,000	0,000	0,000
A	PLE	r-OTTER	BACOMA	341,313	293,770	0,000	0,000	0,000	34,773	96,890	795,122	523,705	1033,120	393,397	115,631	87,896	4,453	17,759	1,079	7,644	0,455	2,401	0,181	0,924	0,000
A	PLE	r-OTTER	none	1018,585	757,396	0,000	0,000	6,524	75,748	659,145	1546,977	1382,307	2031,612	614,136	197,830	205,808	14,101	53,473	0,000	41,075	0,000	18,553	1,280	3,635	0,000
A	PLE	r-PEL_TRAWL	none	0,001	0,005	0,000	0,000	0,000	0,001	0,000	0,011	0,003	0,016	0,000	0,001	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
A	PLE	r-TRAMMEL	none	263,715	56,522	0,000	0,000	0,314	0,000	66,613	3,376	270,923	45,119	185,910	44,730	30,964	7,200	23,777	0,554	7,962	0,000	3,867	0,000	4,741	0,000
A	SPR	PEL_TRAWL	none	8358,001	0,000	0,000	0,000	82226,407	0,000	261997,552	0,000	154983,828	0,000	88029,608	0,000	21315,854	0,000	3538,886	0,000	1179,626	0,000	0,000	0,000	0,000	0,000
B	FLX	r-GILL	none	2268,917	1343,359	0,000	0,000	0,000	0,000	0,000	356,797	264,604	1714,091	741,251	1993,332	1333,932	1035,423	630,777	174,504	796,284	465,359	820,524	0,000	878,554	77,550
B	FLX	r-OTTER	BACOMA	1042,050	2040,200	0,000	0,000	0,000	0,284	8,765	31,262	100,109	730,366	471,300	1990,664	708,546	1471,142	483,128	514,199	426,962	400,036	230,454	207,162	444,145	397,203
B	FLX	r-OTTER	none	5901,797	58178,395	0,000	0,000	0,000	0,000	0,000	0,000	4383,635	0,000	5841,520	0,000	4712,868	0,000	1184,770	0,000	342,959	0,000	56,120	0,000	89,791	0,000
B	FLX	r-OTTER	T90	5,017	119,229	0,000	0,000	0,000	0,016	0,029	1,996	0,183	42,279	2,832	113,490	3,167	85,568	2,176	30,845	1,296	24,457	1,282	12,096	1,907	24,076
B	HER	GILL	none	502,966	0,000	0,000	0,000	0,000	0,000	0,000	0,000	171,275	0,000	381,237	0,000	1439,703	0,000	451,030	0,000	549,047	0,000	281,125	0,000	438,579	0,000
B	HER	OTTER	none	4783,035	0,000	0,000	0,000	6629,816	0,000	5979,591	0,000	2622,163	0,000	14510,401	0,000	27254,000	0,000	5244,333	0,000	8262,422	0,000	3710,561	0,000	3265,493	0,000
B	HER	PEL_TRAWL	none	47388,338	0,000	5596,122	0,000	152084,078	0,000	119446,810	0,000	176287,902	0,000	183861,379	0,000	316027,563	0,000	87875,980	0,000	108414,294	0,000	47123,454	0,000	27792,420	0,000
B	HER	POTS	none	7690,575	0,000	0,000	0,000	0,000	0,000	16425,111	0,000	44733,766	0,000	58511,996	0,000	65869,484	0,000	10050,258	0,000	35824,961	0,000	4825,212	0,000	1959,412	0,000
B	PLE	none	none	0,049	0,000	0,000	0,000	0,000	0,000	0,095	0,000	0,056	0,000	0,007	0,000	0,003	0,000	0,002	0,000	0,001	0,000	0,001	0,000	0,000	0,000
B	PLE	r-DEM_SEINE	none	0,087	0,000	0,000	0,000	0,000	0,000	0,001	0,000	0,044	0,000	0,050	0,000	0,042	0,000	0,019	0,000	0,015	0,000	0,012	0,000	0,002	0,000
B	PLE	r-GILL	none	43,996	121,146	0,000	0,000	0,000	0,000	0,887	0,000	39,785	0,000	23,383	0,000	18,618	0,000	8,534	0,000	6,426	0,000	5,320	0,000	1,109	0,000
B	PLE	r-OTTER	BACOMA	37,124	307,453	0,000	0,000	0,000	58,308	0,673	324,417	55,587	1555,291	60,336	166,982	8,213	0,000	0,641	0,000	0,358	0,000	0,000	0,000	0,000	0,000
B	PLE	r-OTTER	none	138,935	388,732	0,000	0,000	0,000	63,996	268,458	1225,704	152,997	746,194	18,469	34,205	13,528	10,890	6,503	2,933	4,978	0,000	3,657	0,383	0,614	0,000
B	PLE	r-TRAMMEL	none	0,834	0,008	0,000	0,000	0,000	0,000	0,142	0,000	1,301	0,000	0,387	0,000	0,166	0,000	0,127	0,000	0,063	0,000	0,031	0,000	0,000	0,000
B	SPR	PEL_TRAWL	none	118172,765	0,000	20098,700	0,000	2508498,707	0,000	2711903,449	0,000	2155352,311	0,000	3653811,312	0,000	579993,101	0,000	197409,281	0,000	98509,001	0,000	83110,796	0,000	1201,889	0,000
C	HER	PEL_TRAWL	none	15998,535	0,000	9819,382	0,000	158847,271	0,000	97610,959	0,000	170750,842	0,000	177093,848	0,000	163576,581	0,000	45200,531	0,000	30162,435	0,000	2707,532	0,000	2629,247	0,000
C	HER	POTS	none	713,785	0,000	0,000	0,000	55,999	0,000	714,245	0,000	2688,002	0,000	5559,694	0,000	8002,094	0,000	3122,229	0,000	2283,230	0,000	857,682	0,000	688,698	0,000
C	SPR	PEL_TRAWL	none	42215,988	0,000	8675,366	0,000	1405008,588	0,000	1160950,199	0,000	457987,407	0,000	1440329,250	0,000	299074,609	0,000	165435,959	0,000	72903,281	0,000	158463,719	0,000	0,000	0,000

Table 5.1.4.2. Flounder landings and discards in the Baltic by area, gear type (r-indicates regulated gears) in 2004-2013.

REG_AREA	REG_GEAR	SPECON	2004 L	2004 D	2005 L	2005 D	2006 L	2006 D	2007 L	2007 D	2008 L	2008 D	2009 L	2009 D	2010 L	2010 D	2011 L	2011 D	2012 L	2012 D	2013 L	2013 D
28.2	GILL	NONE																	0.366		0.128	
28.2	PEL_TRAWL	NONE															2.250		1.540			
28.2	POTS	NONE																	0.423	0.027	0.851	
28.2	R-DEM_SEINE	NONE																	114.310	2.772	13.910	
28.2	R-GILL	NONE															9.238		4.508			
28.2	R-OTTER	BACOMA															15.500		93.301		1.190	
28.2	R-OTTER	NONE					0.200															
A	BEAM	NONE													0.177		0.605					
A	DEM_SEINE	NONE	0.361	0.189			0.041		0.023													
A	DREDGE	NONE																				
A	GILL	NONE	8.756		37.207	4.540	13.010		23.919		4.271		0.816	0.020	1.975	0.053	1.194		4.948	0.060	2.414	
A	NONE	NONE	248.920		50.080		60.613	26.765	19.732		14.526		7.338		5.006		7.520		8.739		51.754	0.000
A	OTTER	NONE	2.293		3.178		1.311		1.105		0.377		0.150		2.941		9.813		1.787	0.101	1.965	
A	PEL_TRAWL	NONE	1.278		0.405		0.418		0.089		0.015				0.118		0.281		0.526		0.920	
A	POTS	NONE	0.005		15.663		7.128		34.585		37.427		23.963		19.087		14.517		18.015		17.619	
A	R-DEM_SEINE	BACOMA					4.789		1.910						0.003		0.002					
A	R-DEM_SEINE	NONE	110.616	261.401	42.752		112.876		20.782		19.783	65.431	8.963	372.841	9.198	195.428	5.408	163.629	15.248	92.981	14.583	27.131
A	R-GILL	NONE	267.639		331.345	84.697	326.700		232.883		248.809		228.327	111.892	471.912	118.900	1.046.144	474.426	701.407	1.450.170	890.156	1.160.958
A	R-LONGLINE	NONE	1.119		2.040		3.463		5.261		0.345		0.113		1.216		3.705	0.000	2.076		1.501	0.000
A	R-OTTER	BACOMA					279.292		72.677		0.220		8.899	98.808	879.749	552.824	2.411.818	592.580	5.571	149.852	16.166	157.399
A	R-OTTER	NONE	2.817.886	1.247.844	1.458.018	961.283	736.541	470.529	959.709	719.020	702.411	500.835	538.894	2.416.611	601.769	947.276	497.548	642.429	1.326.337	1.453.431	2.240.612	3.542.679
A	R-OTTER	T90													0.205	3.704	0.333	17.987	0.830	26.311	4.347	32.611
A	R-PEL_TRAWL	BACOMA					0.146								0.613		37.322					
A	R-PEL_TRAWL	NONE	1.791	0.571	5.929	5.834	4.842	2.237	0.593	0.517	0.224	0.124	0.185	0.564	0.115	0.252	0.040					
A	R-TRAMMEL	NONE	47.715		82.876	26.997	82.120		77.742		66.027		93.863	10.602	138.838	10.099	120.021	51.219	70.284	79.008	82.338	194.704
A	TRAMMEL	NONE	0.538		3.222		2.957		0.917		0.037		0.445		0.407		0.081		0.362		0.129	
B	GILL	NONE	6.557		4.559		6.873		5.183		0.014		0.025		0.022	0.002	6.903		11.606	0.001	8.750	
B	NONE	NONE	34.182		1.492		7.147		0.382										0.425		42.376	0.000
B	OTTER	NONE	0.405		0.044		0.289						0.005				30.840		0.700		2.634	
B	PEL_TRAWL	NONE	0.946		0.043		0.435										45.192		1.000		1.325	
B	POTS	NONE			0.006								0.166		0.130		1.135	0.000	4.010		5.298	
B	R-DEM_SEINE	BACOMA					0.830										0.552					
B	R-DEM_SEINE	NONE			1.649		0.175		0.334										34.840		16.102	
B	R-GILL	NONE	38.577		56.688		79.709		53.079		30.206		83.178	94.416	74.654	137.712	1.950.528	3.347.948	2.268.917	1.343.359	2.219.219	2.570.919
B	R-LONGLINE	NONE	1.680		1.075		1.035		0.566		0.030		0.011		0.347		14.035	0.000	17.024		12.404	874.138
B	R-OTTER	BACOMA					123.884						33.488	415.546	59.684	576.887	5.675.858	8.131.144	1.042.050	2.040.200	1.201.522	724.598
B	R-OTTER	NONE	1.895.514	1.668.888	1.439.000	104.873	1.393.158	789.406	554.054	1.092.551	275.344	83.722	143.261	1.034.401	341.978	1.072.904	698.988	36.536.284	5.901.797	58.178.395	8.506.424	18.309.530
B	R-OTTER	T90											0.000	4.568	0.921	69.117	7.011	190.213	5.017	119.229	99.334	194.775
B	R-PEL_TRAWL	BACOMA					16.220						0.000	25.911	0.385		47.975	0.592	0.005		4.728	0.000
B	R-PEL_TRAWL	NONE	29.245	42.396	105.673	16.730	32.109	41.002	8.779	8.079							3.740	96.152	2.635	2.638	30.810	
B	R-PEL_TRAWL	T90																			0.172	0.000
B	R-TRAMMEL	NONE	3.929		1.430		2.900		1.467		0.341		0.963	0.003	0.372		0.567		0.948	0.004	10.172	0.018
C	GILL	NONE	12.205	0.254	8.947	0.077	5.997	0.001	2.464	0.002	2.722	0.004	1.711	0.014	2.318	0.077	1.939	0.002	4.871	0.294	14.371	0.000
C	NONE	NONE																			0.016	0.004
C	OTTER	NONE															0.900	0.000				
C	PEL_TRAWL	NONE							0.001													
C	POTS	NONE	7.265	0.000	3.557	0.007	1.540	0.000	0.136	0.000	0.013	0.003	0.027	0.003	0.054	0.000	0.015	0.000	1.843	0.000	3.646	0.000
C	R-DEM_SEINE	NONE																	2.690		36.058	
C	R-GILL	NONE											0.090	0.486	0.078		0.094		2.564	2.099	2.699	2.945
C	R-OTTER	NONE			7.000		9.305		2.204		3.222								0.200			
C	TRAMMEL	NONE											0.044		0.019		0.010		0.005			

Table 5.1.4.3. Plaice landings and discards in the Baltic by area, gear type (r-indicates regulated gears) in 2004-2013.

REG_AREA	REG_GEAR	SPECON	2004 L	2004 D	2005 L	2005 D	2006 L	2006 D	2007 L	2007 D	2008 L	2008 D	2009 L	2009 D	2010 L	2010 D	2011 L	2011 D	2012 L	2012 D	2013 L	2013 D
A	BEAM	NONE			0.010								0.005		0.042		2121					
A	DEM_SEINE	NONE	1013	0.022			0.104		0.045													
A	GILL	NONE	6147		15913		9426		21393		5218		0.740		1113	0.001	0.361		0.868	0.009	0.956	
A	NONE	NONE	229494		41021		55447	5112	14842		6796		2709		1920		1346		4087		16018	0.000
A	OTTER	NONE	1108		3300		1937		2720		0.456		2881		2395		4253		2996	0.049	0.687	
A	PEL_TRAWL	NONE	0.117		0.225		0.420		0.050		0.019		0.001		0.192		0.503		1193		1883	
A	POTS	NONE			4398		2855		2644		1416		2311		1339		1936		1560		1072	
A	R-BEAM	BACOMA									2780											
A	R-BEAM	NONE																				
A	R-DEM_SEINE	BACOMA					7476		2581		3131		1359		0.215		0.846		0.090			
A	R-DEM_SEINE	NONE	62594	16301	79772		91247		49711		22364	7221	16671	9925	7192	12402	4356	24963	23310	55635	7054	7139
A	R-GILL	NONE	148722	14173	260106	103185	225787		371179		336870	176116	417425	26715	298762	11227	275090	76640	409972	162403	342119	148756
A	R-LONGLINE	NONE	0.146		8194		4717		15808	10618	0.004		0.003		1367		0.429		0.021		0.200	
A	R-OTTER	BACOMA	10561		17366		202837	86855	258060	71397	248626	133865	266220	114009	221848	136970	332372	449269	341313	293770	14517	22230
A	R-OTTER	NONE	730657	464286	723332	665265	674911	261400	783617	441020	729833	403042	773242	427820	702457	458484	732168	1134531	1018585	757396	1331536	860543
A	R-OTTER	T90													0.275	0.391	1524	6832	1085	25056	2815	4606
A	R-PEL_TRAWL	BACOMA					1082		2202						0.480		0.443		0.100			
A	R-PEL_TRAWL	NONE	0.776	0.523	1616	3097	6190	1982	0.266	0.187	0.309	0.157	2585	1041	4000	4972	0.443		0.001	0.005		
A	R-TRAMMEL	NONE	129714		197632	45211	200934		311435		205766		202622	1019	181389	5543	172596	39770	263715	56522	258655	7396
A	TRAMMEL	NONE	0.371		3172		6710		0.452		0.115		0.083		0.212		0.108		0.082		0.348	
B	DREDGE	NONE									0.126											
B	GILL	NONE	0.046		0.758		0.686		1010		0.536		0.183									
B	NONE	NONE	15902		0.778		0.691		0.738										0.049		4503	
B	OTTER	NONE	0.081		0.012		0.041		0.068				0.002				0.600					
B	PEL_TRAWL	NONE	0.002		0.012		0.039		0.015										0.500			
B	POTS	NONE	0.005		0.382		0.032														0.134	
B	R-DEM_SEINE	BACOMA					0.370		1286		0.238		0.564		0.560		1138		0.270			
B	R-DEM_SEINE	NONE	0.001		1522		1871		0.428										0.087			
B	R-GILL	NONE	36159		34591		45016		103672		53479		69428	15443	47479	32389	65290	111209	43997	121146	33439	123802
B	R-LONGLINE	NONE	0.354		0.146		0.692		2214		0.078		0.299		0.059		0.021				0.130	0.000
B	R-OTTER	BACOMA	35744		28200		86712		79466		76427	26440	100130	113683	83183	66566	45973	132800	37124	307453	17688	117112
B	R-OTTER	NONE	207745	50304	172847	30167	267553	206463	352220	128926	265792	18936	282252	98985	250540	415944	173454	41797	138935	388732	189529	80009
B	R-OTTER	T90											0.000	0.430	2856	5695	8588	11887	4210	28275	10843	40673
B	R-PEL_TRAWL	BACOMA	0.060		0.015		0.129		0.576		0.367		0.012		0.429		0.236		0.015			
B	R-PEL_TRAWL	NONE	0.917	0.326	0.494	0.350	1260	2384	1752	0.358	0.295	0.128	1057	0.431	1104	2312			0.000	0.035		
B	R-TRAMMEL	NONE	0.817		5957		12130		25617		14129		17894	0.000	2359		1820		0.834	0.008	0.838	0.012
C	R-GILL	NONE																	0.000	0.639	0.000	1139

Table 5.1.4.4. Herring and sprat landings and discards in the Baltic by area, gear type (r-indicates regulated gears) in 2004-2013.

REG_AREA	REG_GEAR	SPECON	SPECIES	2004 L	2004 D	2005 L	2005 D	2006 L	2006 D	2007 L	2007 D	2008 L	2008 D	2009 L	2009 D	2010 L	2010 D	2011 L	2011 D	2012 L	2012 D	2013 L	2013 D
28.2	GILL	NONE	HER											0.757		0.511		0.980		1.878		0.843	
28.2	OTTER	NONE	HER	36.735		26.964		49.990		17.128												0.200	
28.2	PEL_TRAWL	NONE	HER	2.167.531		3.941.037		3.391.081		3.167.969		3.796.644		3.250.514		3.700.155		3.168.367		2.630.702		3.897.503	
28.2	POTS	NONE	HER			0.175		3.680		0.030				2.400				0.293		0.180		0.335	
28.2	R-DEM_SEINE	NONE	HER											0.120									
28.2	R-GILL	NONE	HER											0.029		0.070		0.139		0.030			
28.2	R-OTTER	BACOMA	HER							0.140								149.710				0.200	
28.2	R-PEL_TRAWL	BACOMA	HER					0.330															
28.2	R-PEL_TRAWL	NONE	HER																			20.000	
A	DEM_SEINE	NONE	HER	236.118		443.246		367.549		501.595		427.064		93.760		6.260		49.898					
A	GILL	NONE	HER	6.288.783		5.649.684		7.647.344		6.719.055		8.291.536		7.134.347		5.223.433	0.000	3.716.633	0.000	4.795.301	0.000	5.014.308	0.000
A	NONE	NONE	HER	877.184		864.412		429.845		263.652		149.165		59.543		3.351		1.316		8.235		146.282	0.000
A	OTTER	NONE	HER	9.906.106		9.151.477		8.839.213		6.073.917		6.236.888		5.103.044	296.615	2.749.250	342.503	2.233.008		2.383.594		1.917.899	0.000
A	PEL_SEINE	NONE	HER											1.100									
A	PEL_TRAWL	NONE	HER	18.705.656		21.587.505		24.369.011		21.870.828		23.154.986		15.604.770	0.000	8.499.836		7.455.652		12.041.400		15.948.694	0.000
A	POTS	NONE	HER	431.509		103.269		810.584		782.435		408.620		459.023		275.739		269.583		385.349		438.147	73.521
A	R-DEM_SEINE	NONE	HER	0.000	0.096	0.130						0.018	0.184	0.000	0.001			0.000	0.002	0.000	0.038	0.000	1.075
A	R-GILL	NONE	HER	8.618		14.643		11.546		10.111		8.726		19.132	1.928	8.682	0.003	5.062	1.827	3.110	1.030	1.568	0.581
A	R-LONGLINE	NONE	HER	0.150				0.001															
A	R-OTTER	BACOMA	HER	4.395		0.825		2.863		1.735		52.942		6.183	0.254	12.296		6.435	0.000	9.000	0.430		
A	R-OTTER	NONE	HER	6.613	6.369	11.835	149.137	6.771	47.629	0.091	0.184	0.149	23.522	0.149	5.868	1.761	32.555	0.516	2.156	37.426	11.981.858	55.529	151.437
A	R-PEL_TRAWL	BACOMA	HER									5.000											
A	R-PEL_TRAWL	NONE	HER	24.953	0.001	61.098	0.010	3.100	0.022			0.000	0.002			0.000	0.032						
A	R-TRAMMEL	NONE	HER	0.033		0.166		0.027		0.179		0.458		0.022	0.003	0.532	0.000	0.036	0.014	0.020	0.013	0.150	0.014
A	TRAMMEL	NONE	HER					0.100				0.083		0.090		0.918		0.111		0.670		0.330	
B	DEM_SEINE	NONE	HER	220.565		12.145						56.400		63.560		15.220		25.780	0.000	40.150		44.300	
B	GILL	NONE	HER	189.162		53.296		40.374		29.503		35.744		58.542	0.000	83.344	0.000	130.051	0.000	502.966	0.000	617.011	
B	NONE	NONE	HER	0.016		0.003		0.420										31.690				163.999	0.000
B	OTTER	NONE	HER	7.148.137		5.915.670		6.138.233		5.161.421		5.615.367		7.888.290		6.980.238	0.000	6.546.166	0.000	4.783.035		4.765.770	
B	PEL_SEINE	NONE	HER	59.000								124.260		485.595		530.900		530.475	0.000	588.039		506.155	
B	PEL_TRAWL	NONE	HER	42.831.213		49.182.429		54.952.203		58.982.647		53.303.911		57.960.632	0.000	61.168.905	0.000	57.976.325	241.001	47.388.338		43.599.488	0.000
B	POTS	NONE	HER	1.476.253		6.716.152		7.024.468		6.826.869		10.452.198		11.429.668		9.073.214		9.088.542		7.690.575		7.124.605	
B	R-DEM_SEINE	BACOMA	HER					0.525						0.025		0.023							
B	R-GILL	NONE	HER	0.348		0.422		0.158		0.171		0.488		0.498	0.343	0.058	0.005	10.511	1.704	0.391	2.419	2.822	0.535
B	R-LONGLINE	NONE	HER	0.148																		0.003	
B	R-OTTER	BACOMA	HER	3.105		1.210		0.475		4.550		0.050		0.002		0.751		48.790	0.497	0.000	0.079	0.000	0.029
B	R-OTTER	NONE	HER	0.002	0.000	0.015	0.000	0.071	0.018	0.009	0.000	0.012	0.000	0.006	0.000	0.140	0.000			8.800		56.541	0.035
B	R-OTTER	T90	HER															0.000	0.080	0.000	0.006	0.000	0.007
B	R-PEL_TRAWL	BACOMA	HER															0.125					
B	R-PEL_TRAWL	NONE	HER	1.461				0.000	0.001									4.025		24.750		2.820	
B	TRAMMEL	NONE	HER	0.009																			
C	GILL	NONE	HER	1.191.553	0.848	947.571	6.148	740.829	11.249	850.050	94.867	816.678	42.603	744.508	34.746	638.611	28.448	612.830	33.714	637.461	10.610	564.146	3.675
C	NONE	NONE	HER	0.011				0.002		0.006		0.006										13.535.717	0.440
C	OTTER	NONE	HER	1.446.673		706.643		957.141		1.328.926		1.303.259		1.280.398		1.174.348		1.867.272	0.000	3.235.876		2.526.078	
C	PEL_TRAWL	NONE	HER	6.894.400		15.555.811		14.354.699		19.625.776		25.971.077		23.796.208	0.000	19.152.109	0.000	19.351.112	0.000	15.998.535		127.345.577	0.000
C	POTS	NONE	HER	4.059.721	2.869	3.069.676	0.267	2.816.198	76.210	3.474.077	10.878	3.262.908	0.496	3.241.692	1.730	3.547.702	0.334	2.879.257	5.741	5.242.092	5.679	6.330.914	1.033
C	R-DEM_SEINE	NONE	HER																	0.005		0.650	
C	R-GILL	NONE	HER	0.010				0.009		0.600				0.007		0.005				0.200	0.040	0.001	0.038
C	R-OTTER	BACOMA	HER																			8.000	0.000
C	R-PEL_TRAWL	NONE	HER																			19.100	

Table 5.1.4.5. Discard rates for small pelagic species (herring and sprat) in 2004-2013 by gear category and area. An "r" in front of the gear type indicates regulated gears in accordance with Council Regulation (EC) 1098/2007. Gear types without an "r" are non-regulated gears. Data from Estonia are only available from 2005 onwards. Qualifier for discard estimates: A>66% of landings were covered with discard estimates, 33%>B<=66%, C<=33%.

SPECIES	REG AREA	REG GEAR	SPECON	2004 DQI	2005 DQI	2006 DQI	2007 DQI	2008 DQI	2009 DQI	2010 DQI	2011 DQI	2012 DQI	2013 DQI
HER	A	DEM_SEINE	NONE										
HER	A	GILL	NONE							C	C	C	C
HER	A	NONE	NONE										A
HER	A	OTTER	NONE						0.055 C	0.111 C			C
HER	A	PEL_SEINE	NONE										
HER	A	PEL_TRAWL	NONE						C				B
HER	A	POTS	NONE										0.144 C
HER	A	R-DEM_SEINE	NONE	1 A				0.911 A	1 A		1 A	1 A	1 A
HER	A	R-GILL	NONE						0.092 C	0 B	0.265 C	0.249 C	0.27 B
HER	A	R-LONGLINE	NONE										
HER	A	R-OTTER	BACOMA						0.039 C		C	0.046 A	
HER	A	R-OTTER	NONE	0.491 C	0.926 A	0.876 C	0.669 C	0.994 C	0.975 A	0.949 C	0.807 A	0.997 C	0.732 C
HER	A	R-PEL_TRAWL	BACOMA										
HER	A	R-PEL_TRAWL	NONE	0 C	0 C	0.007 C		1 A		1 A			
HER	A	R-TRAMMEL	NONE						0.12 C	B	0.28 B	0.394 C	0.085 C
HER	A	TRAMMEL	NONE										
HER	B	DEM_SEINE	NONE								C		
HER	B	GILL	NONE						C	C	C	C	
HER	B	NONE	NONE										A
HER	B	OTTER	NONE							C	A		
HER	B	PEL_SEINE	NONE								A		
HER	B	PEL_TRAWL	NONE						C	C	0.004 C		C
HER	B	POTS	NONE										
HER	B	R-DEM_SEINE	BACOMA										
HER	B	R-GILL	NONE						0.408 C	0.079 C	0.14 C	0.861 C	0.159 C
HER	B	R-LONGLINE	NONE										
HER	B	R-OTTER	BACOMA								0.01 C	1 A	1 A
HER	B	R-OTTER	NONE	B	A	0.202 A	A	A	A	A			0.001 C
HER	B	R-OTTER	T90								1 A	1 A	1 A
HER	B	R-PEL_TRAWL	BACOMA										
HER	B	R-PEL_TRAWL	NONE			1 A							
HER	B	TRAMMEL	NONE										
HER	C	GILL	NONE	0.001 C	0.006 C	0.015 C	0.1 C	0.05 C	0.045 C	0.043 C	0.052 C	0.016 C	0.006 C
HER	C	NONE	NONE										0 A
HER	C	OTTER	NONE								A		
HER	C	PEL_TRAWL	NONE						C	C	C		A
HER	C	POTS	NONE	0.001 B	0 B	0.026 B	0.003 B	0 B	0.001 B	0 B	0.002 B	0.001 A	0 B
HER	C	R-DEM_SEINE	NONE										
HER	C	R-GILL	NONE									0.167 C	0.974 C
HER	C	R-OTTER	BACOMA										A
HER	C	R-PEL_TRAWL	NONE										
SPR	A	GILL	NONE										
SPR	A	NONE	NONE										A
SPR	A	OTTER	NONE						0.009 C	0.02 C			C
SPR	A	PEL_TRAWL	NONE						C	C	C		C
SPR	A	POTS	NONE										
SPR	A	R-DEM_SEINE	NONE					1 A				1 A	
SPR	A	R-GILL	NONE										
SPR	A	R-LONGLINE	NONE										
SPR	A	R-OTTER	BACOMA									0.006 A	
SPR	A	R-OTTER	NONE	0.001 C	0 C	0.879 C	A	0.148 C	0.117 C	0.004 C	0.002 C	0.058 C	0.108 A
SPR	A	R-PEL_TRAWL	NONE			1 A			0 C				
SPR	A	TRAMMEL	NONE										
SPR	B	DEM_SEINE	NONE										
SPR	B	GILL	NONE										
SPR	B	NONE	NONE										C
SPR	B	OTTER	NONE								A		
SPR	B	PEL_SEINE	NONE										
SPR	B	PEL_TRAWL	NONE						C	C	0.003 C		C
SPR	B	POTS	NONE										
SPR	B	R-OTTER	BACOMA										
SPR	B	R-OTTER	NONE										
SPR	B	R-PEL_TRAWL	BACOMA										
SPR	B	R-PEL_TRAWL	NONE										
SPR	C	GILL	NONE	0.016 C	0.083 B	0.108 C	0.01 C	0.008 C	0.014 C	0.154 C	0.168 C	0.001 C	C
SPR	C	NONE	NONE										0.001 A
SPR	C	OTTER	NONE								C		
SPR	C	PEL_TRAWL	NONE						C	C	C		C
SPR	C	POTS	NONE	B	C	1 C	C	A			C	A	
SPR	C	R-DEM_SEINE	NONE										
SPR	C	R-PEL_TRAWL	NONE										

5.1.5 ToR 1.e CPUE and LPUE of cod by area, fisheries and Member State

Although it was explicitly asked to analyse CPUE and LPUE time series of Baltic cod for gear categories, which are in accordance with Council Regulation (EC) 2187/2005 only, the STECF EWG used the categories from the cod management plan to be consistent within the report and to provide respective advice.

The Tables 5.1.5.1, 5.1.5.2 and Figures 5.1.5.1-5.1.5.2 provide data on CPUE and LPUE by year and derogation as well as aggregated over countries. The CPUE figures in the table should only be considered indicative since estimated discard ratios depend on sampling intensity.

CPUEs and LPUEs were in general higher for otter trawls, demersal seines and pelagic trawls compared to gill nets. CPUEs and LPUEs varied considerably between countries. CPUE and LPUE aggregated over countries and years have shown a generally increasing trend in areas A –C up to 2011, although CPUEs and LPUEs showed some inter-annual variability. In area A the CPUE and LPUE estimates in regulated – otter trawl fishery show a slight decrease in 2011-2013. For regulated –gillnet fishery both CPUE and LPUE also retained the level close to the recent years. In area B CPUEs and LPUEs decreased somewhat in 2013 both for r-gill and r-otter.

The updated information on CPUE and LPUE by area, gear and Member States, made available to EWG14-06 and EWG14-13 can be found on the STECF website: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1413. Analysis of CPUE and LPUE data broken down by area, gear and Member State revealed that the temporal dynamics of respective CPUE and LPUE values was rather similar. Below only the CPUE values from Baltic cod fishery by country and effort-regulated gears are considered.

CPUE (g/kW*days) of cod in regulated gillnet fisheries by Member States, in areas A and B is presented in Figure 5.1.5.3. In general, the cod CPUE values in the effort-regulated gillnet fishery did not reveal any clear trend in most of the Member States and fluctuated around 1000-3000 g/kW*days (in area A), and 2000-5000 g/kW*days in area B. The highest CPUE has shown LIT (around 4500 g/kW*days in 2009-2012). Also LAT has shown high values since 2004. The POL CPUE index has increased from 1200 g/kW*days in 2004 up to 3600 g/kW*days in 2011-2012. In 2013, however, the CPUE has decreased in most of the countries in area B, particularly in SWE and DNK.

Effort-regulated otter-trawl fishery (R-OTTER) CPUE (g/kW*days) of cod by Member States is presented in the Figure 5.1.5.4. The overall CPUE trend in effort-regulated otter trawl fishery has been decreasing in the most recent period, mainly driven by the exceptional values in DEN and LVA data sets (values of 2009 and 2010). The CPUE index of DEN increased 2.3 times from around 4000 up to 13000 g/kW*days in 2004-2010 decreasing to 8000 g/kW*days in 2013. The GER CPUE index was also increasing reaching maximum value above 11000 g/kW*days in 2008 but then decreased to the level of 2006-2007. The LAT CPUE index was fluctuating significantly over the period, reaching 12000 g/kW*days in 2010 but decreasing to 7000-8000 g/kW*days in 2011-2012. The SWE CPUE index has increased steadily in 2004-2012 except in 2008 and 2010 exceeding 6000 g/kW*days in 2012 in area A. The data available to the EWG14-06/14-13 of POL CPUE show the steady increase in 2004-2012 in area B, and remaining on the same level in 2013. Analyses of cod CPUE by country have shown (Figure 5.1.5.3-4) that overall average CPUE of r-otter trawl fisheries has been almost twice bigger than that of r-gillnet fisheries CPUE in 2004-2013 period. Analyses of CPUE dynamics by areas A and B (Figure 5.1.5.5.) show that average CPUE (g/kW*days) of cod in r-otter gear fisheries in area B was app. 52% higher than in area A (app. 6000 and 3000 g/kW*days, respectively). EST, LAT and LIT data were

excluded from the area A, since the total proportion of these Member States was only marginal in the area A (from 0 to maximum 2% of the total annual effort).

Table 5.1.5.1. Baltic: Cod CPUE (g/KW*days) by derogation, and year, 2004-2013 for areas A, B, C and 28.2.

REG AREA	REG GEAR	SPECON	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012	CPUE 2013	CPUE 2011-2013
28.2	GILL	NONE	0	0	0	0	0		0	0	0	0	0
28.2	OTTER	NONE		0	0		0	0	0	0	0		0
28.2	PEL_TRAWL	NONE	13	2	3	7	3		1	2	1	0	1
28.2	R-GILL	NONE	1912	2513	1740	2087	2542	2549	1594	2044	3168	3817	2893
28.2	R-OTTER	BACOMA	1966	2330	2620	1559	1674	6131	2467	1109	5381	2087	2546
28.2	R-PEL_TRAWL	BACOMA	0				0		0	0	0	8328	8328
A	BEAM	NONE	0						2262	3394		0	2396
A	DEM_SEINE	NONE	0	0	406	0					0		0
A	DREDGE	NONE											0
A	GILL	NONE	130	303	215	198	46	27	26	26	9	23	19
A	NONE	NONE	45760	3796	5756	1148	704	542	810	886	1424	2876	2062
A	OTTER	NONE	100	208	240	156	181	138	272	227	70	58	128
A	PEL_TRAWL	NONE	91	180	205	151	100	65	119	121	22	19	50
A	POTS	NONE	28	1218	401	740	315	312	518	334	254	1268	642
A	R-BEAM	BACOMA	0	0	0	0	2327	0	0	0	0	0	0
A	R-BEAM	NONE	0	0	0	0	0	0		0	0	0	0
A	R-DEM_SEINE	BACOMA	0	0	2177	3789	6510	4583	5354	5077	2268	0	4758
A	R-DEM_SEINE	NONE	3849	3952	5497	6093	7028	5481	6161	7804	4970	8774	7009
A	R-GILL	NONE	1796	1782	1822	1904	1825	1701	1886	1839	2066	1858	1921
A	R-LONGLINE	NONE	2131	2159	1847	2620	1753	1500	1963	2551	2361	2287	2394
A	R-OTTER	BACOMA	2544	1724	3322	3339	2924	3024	3263	4620	3983	3564	4264
A	R-OTTER	NONE	2751	3209	3526	4154	3632	4210	4743	5232	4890	4138	4646
A	R-OTTER	T90	0	0	0	0	0	0	2195	5229	5781	2707	4391
A	R-PEL_TRAWL	BACOMA	1568	904	3305	5758	1441	0	3333	2992	3005	0	2995
A	R-PEL_TRAWL	NONE	2115	3314	4526	3362	2826	9475	5642	0	3106		958
A	R-TRAMMEL	NONE	1232	1345	1431	1229	1161	783	1201	1309	1511	1562	1467
A	TRAMMEL	NONE	1566	1347	669	1118	475	0	402	0	0	125	60
B	DEM_SEINE	NONE			0					87			72
B	DREDGE	NONE	0	0	0	0	4525	0			0	0	0
B	GILL	NONE	256	417	398	324	57	28	14	96	34	91	72
B	NONE	NONE	103400	3004	6332	1347	1256	431	312		64358	9266	10544
B	OTTER	NONE	84	110	66	33	32	44	15	75	76	28	61
B	PEL_TRAWL	NONE	44	27	25	37	36	48	57	33	15	72	39
B	POTS	NONE	0	0	3	0	5	85	52	28	8	41	26
B	R-DEM_SEINE	BACOMA	0	0	5699	6444	12079	17195	8659	9456	7461	0	8619
B	R-DEM_SEINE	NONE	588	14459	8690	10731	0	0	0	11670	12399	0	12197
B	R-GILL	NONE	1656	1817	2001	1985	2778	4065	4245	3663	3111	2562	3120
B	R-LONGLINE	NONE	2994	2760	2939	2991	3102	1937	3362	2715	3069	2345	2732
B	R-OTTER	BACOMA	1818	1959	2533	3312	4129	7505	7792	9990	7667	5094	7894
B	R-OTTER	NONE	3736	3751	5253	8721	9032	11523	11438	5306	8452	6434	6848
B	R-OTTER	T90	0	0	0	0	0	9333	6952	6034	6177	4843	5539
B	R-PEL_TRAWL	BACOMA	1767	1240	2691	3212	1424	6486	8630	4110	7573	4198	4653
B	R-PEL_TRAWL	NONE	8579	5033	15802	74687	14205	12758	13962	2785	6423	3282	3868
B	R-TRAMMEL	NONE	967	439	473	2557	2579	4154	2660	952	0	0	95
B	TRAMMEL	NONE	0	0	0		0				0	0	0
C	GILL	NONE	0	1	0	0	0	0	1	1	6	4	3
C	NONE	NONE		0	0	0	0				0	4	4
C	OTTER	NONE	0	0	14						3		1
C	PEL_TRAWL	NONE									0	0	0
C	POTS	NONE	0	0				0			0	0	0
C	R-GILL	NONE	133	107	104	161	213	556	585	1079	905	824	925
C	R-LONGLINE	NONE	0	0	0	0	0	0	0	0	0		0
C	R-OTTER	BACOMA	0	0	0	0	463	0	0	0	0		0
C	R-OTTER	NONE	0					0	0	0		10000	5000
C	R-OTTER	T90	0	0	0	0	0	0	0	0	0	0	0

Table 5.1.5.2 Baltic: Cod LPUE (g/KW*days) by derogation and year, 2004-2013 for areas A, B, C and 28.2

REG AREA	REG GEAR	SPECON	LPUE 2004	LPUE 2005	LPUE 2006	LPUE 2007	LPUE 2008	LPUE 2009	LPUE 2010	LPUE 2011	LPUE 2012	LPUE 2013	LPUE 2011-2013
28.2	GILL	NONE	0	0	0	0	0		0	0	0	0	0
28.2	OTTER	NONE		0	0		0	0	0	0	0		0
28.2	PEL_TRAWL	NONE	13	2	3	7	3		1	2	1	0	1
28.2	R-GILL	NONE	1912	2448	1702	1953	2480	2549	1594	2044	3168	3817	2893
28.2	R-OTTER	BACOMA	1955	2330	2620	1559	1674	6131	2467	1109	5381	2087	2546
28.2	R-PEL_TRAWL	BACOMA	0				0		0	0	0	8328	8328
A	BEAM	NONE	0						2262	3394		0	2396
A	DEM_SEINE	NONE	0	0	406	0					0		0
A	DREDGE	NONE											0
A	GILL	NONE	130	276	215	198	46	27	26	26	9	23	19
A	NONE	NONE	45760	3796	5642	1148	704	542	810	886	1424	2876	2062
A	OTTER	NONE	100	208	240	156	181	138	107	227	70	58	128
A	PEL_TRAWL	NONE	89	180	205	151	100	65	119	88	18	19	39
A	POTS	NONE	28	1218	401	740	315	312	518	328	254	251	275
A	R-BEAM	BACOMA	0	0	0	0	2327	0	0	0	0	0	0
A	R-BEAM	NONE	0	0	0	0	0	0		0	0	0	0
A	R-DEM_SEINE	BACOMA	0	0	2177	3789	6510	4583	5354	5077	2268	0	4758
A	R-DEM_SEINE	NONE	3421	3952	5497	6093	6973	5084	5236	7058	4881	6504	5989
A	R-GILL	NONE	1767	1703	1820	1902	1822	1592	1789	1814	2033	1811	1886
A	R-LONGLINE	NONE	2084	2060	1847	2573	1753	1495	1963	2517	2332	2155	2328
A	R-OTTER	BACOMA	2400	1718	3120	3121	2749	2724	2723	3793	3679	3231	3703
A	R-OTTER	NONE	2478	2542	3220	3856	3347	3858	3916	4650	4650	3249	4029
A	R-OTTER	T90	0	0	0	0	0	0	2016	3641	4717	2331	3432
A	R-PEL_TRAWL	BACOMA	1568	904	3305	5758	1441	0	3333	2472	3005	0	2582
A	R-PEL_TRAWL	NONE	1851	2772	4122	3042	2826	8746	4724	0	3106		958
A	R-TRAMMEL	NONE	1219	1202	1431	1229	1161	741	1110	1302	1480	1536	1445
A	TRAMMEL	NONE	1566	1347	669	1118	475	0	402	0	0	125	60
B	DEM_SEINE	NONE			0					87			72
B	DREDGE	NONE	0	0	0	0	4525	0			0	0	0
B	GILL	NONE	256	412	398	324	57	19	14	89	34	91	70
B	NONE	NONE	103400	3004	6332	1347	1256	431	312		64358	9266	10544
B	OTTER	NONE	84	110	66	33	32	42	15	66	58	28	52
B	PEL_TRAWL	NONE	44	27	25	37	36	44	32	30	11	12	21
B	POTS	NONE	0	0	3	0	5	85	52	19	8	41	23
B	R-DEM_SEINE	BACOMA	0	0	5699	6444	12079	17195	8659	9456	7461	0	8619
B	R-DEM_SEINE	NONE	588	14459	8690	10731	0	0	0	11670	12399	0	12197
B	R-GILL	NONE	1608	1761	1928	1837	2687	3906	3885	3484	2929	2380	2939
B	R-LONGLINE	NONE	2956	2715	2939	2991	3095	1806	2975	2599	2954	2219	2614
B	R-OTTER	BACOMA	1722	1787	2176	2783	3795	6740	7093	8572	6189	4170	6575
B	R-OTTER	NONE	3517	3479	4673	7793	8559	10734	10785	4891	7444	5501	6035
B	R-OTTER	T90	0	0	0	0	0	8075	6410	4855	4741	3740	4336
B	R-PEL_TRAWL	BACOMA	1719	1240	2323	2917	1290	5961	8364	3428	6449	3308	3894
B	R-PEL_TRAWL	NONE	8319	4793	14283	67550	14205	12478	13208	2596	5594	3282	3609
B	R-TRAMMEL	NONE	967	439	473	2557	2579	4096	2660	952	0	0	95
B	TRAMMEL	NONE	0	0	0		0				0	0	0
C	GILL	NONE	0	1	0	0	0	0	1	1	6	4	3
C	NONE	NONE		0	0	0	0				0	4	4
C	OTTER	NONE	0	0	14						3		1
C	PEL_TRAWL	NONE									0	0	0
C	POTS	NONE	0	0				0			0	0	0
C	R-GILL	NONE	133	107	104	161	213	541	571	1028	865	770	877
C	R-LONGLINE	NONE	0	0	0	0	0	0	0	0	0		0
C	R-OTTER	BACOMA	0	0	0	0	463	0	0	0	0		0
C	R-OTTER	NONE	0					0	0	0		10000	5000
C	R-OTTER	T90	0	0	0	0	0	0	0	0	0	0	0

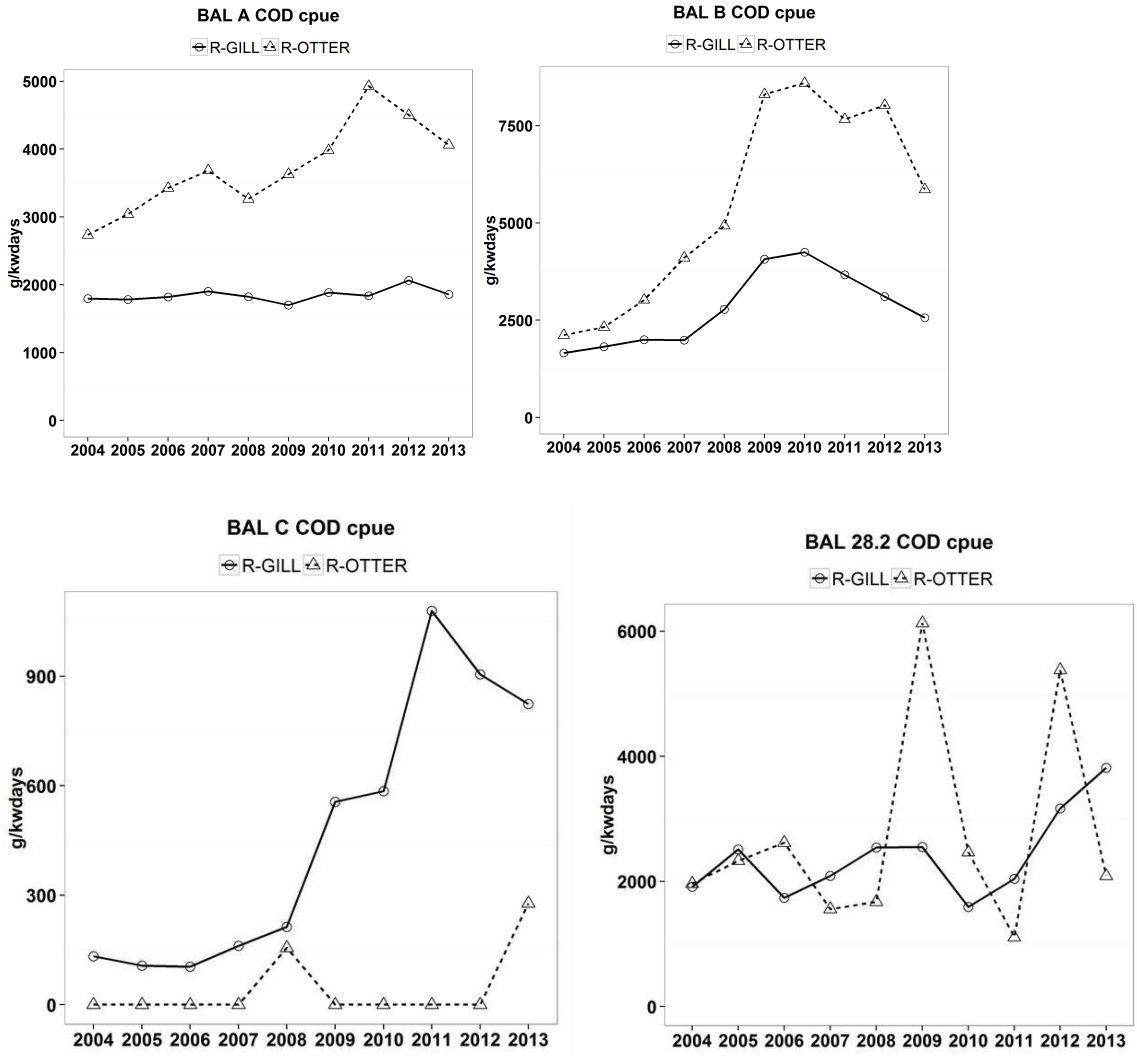


Figure 5.1.5.1. Cod CPUE (g/KW*days) by derogation, country and year, 2003-2013 for areas A, B, C and 28.2.

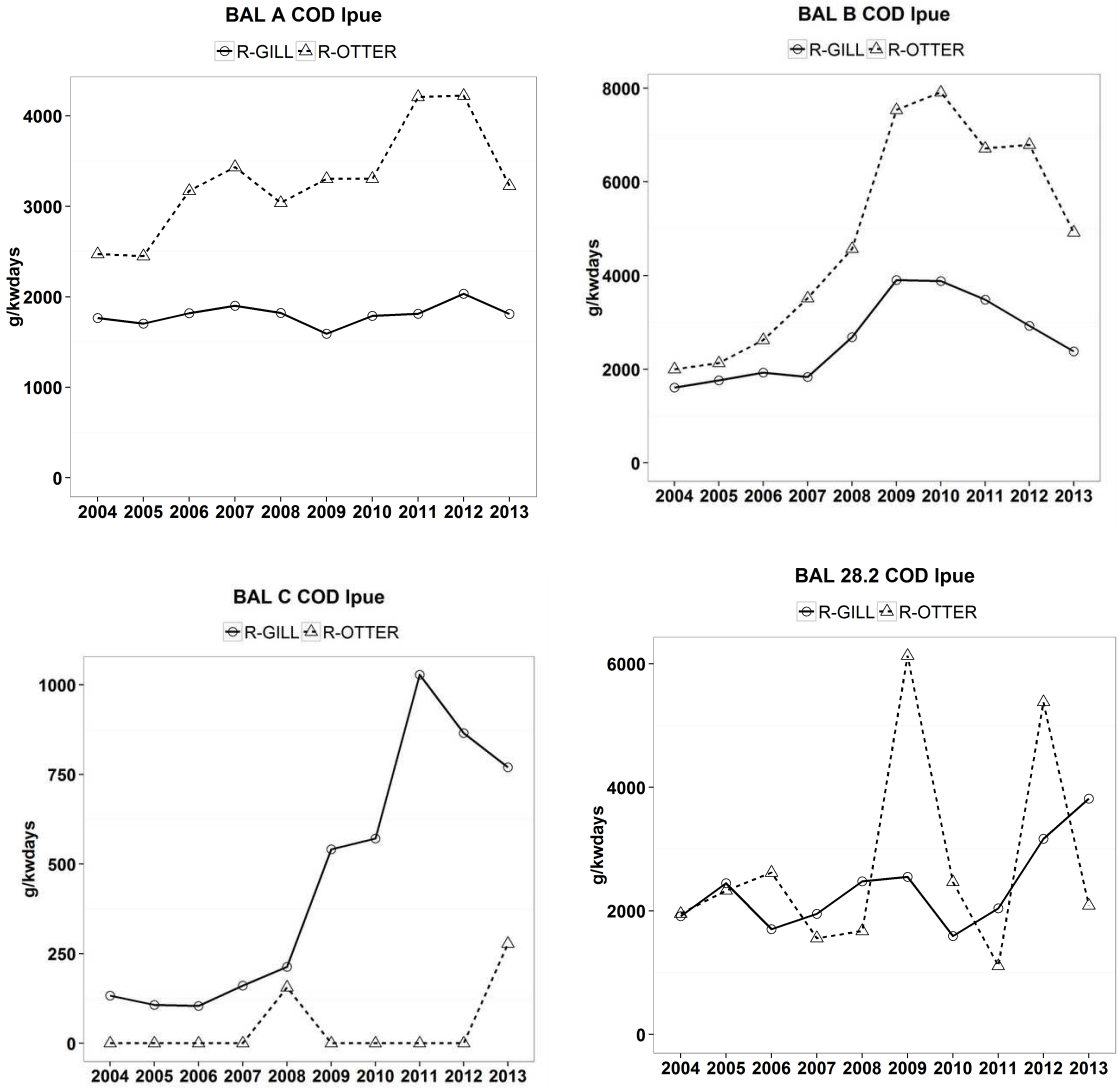


Figure 5.1.5.2. Cod LPUE (g/KW*days) by derogation, country and year, 2003-2013 for areas A, B, C and 28.2.

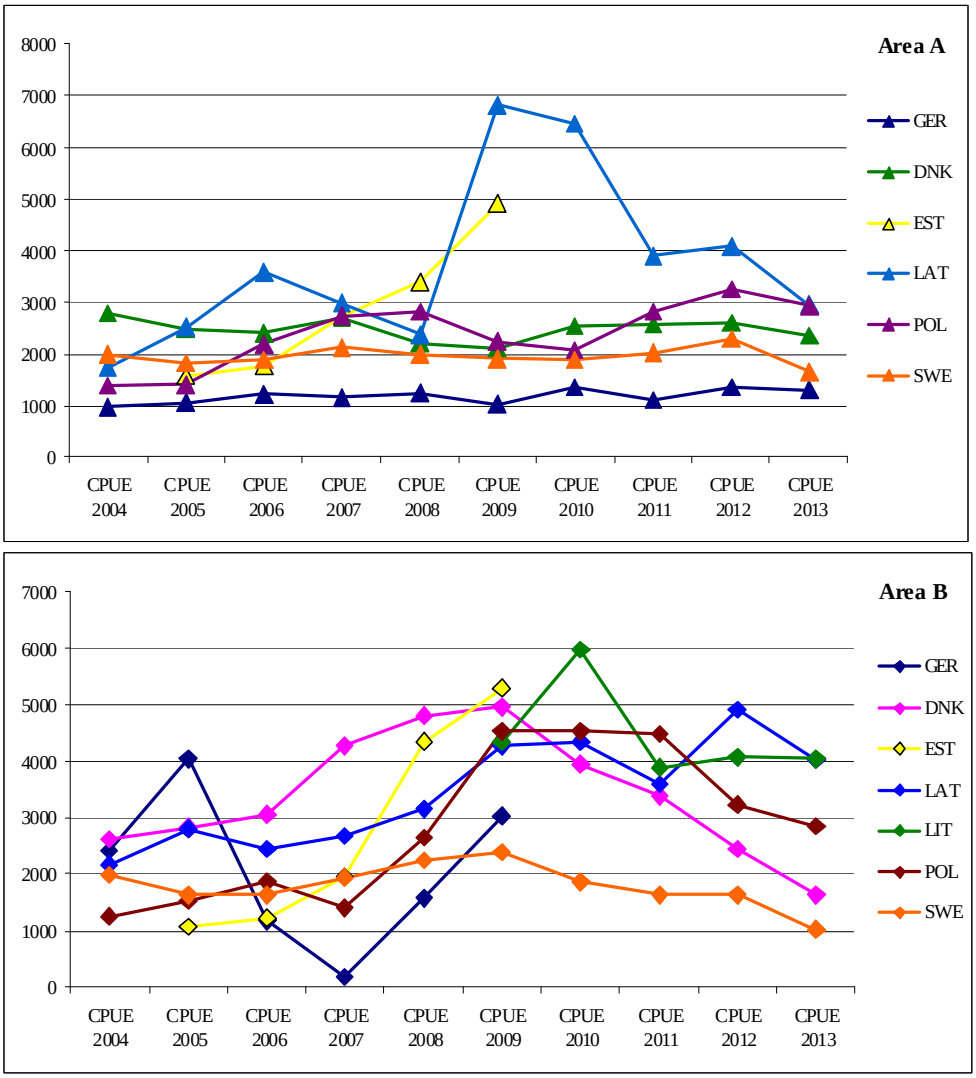


Figure 5.1.5.3. CPUE (g/kW*days) of cod in regulated gill net fisheries in the areas A and B, Baltic Sea by Member States, 2004-2013.

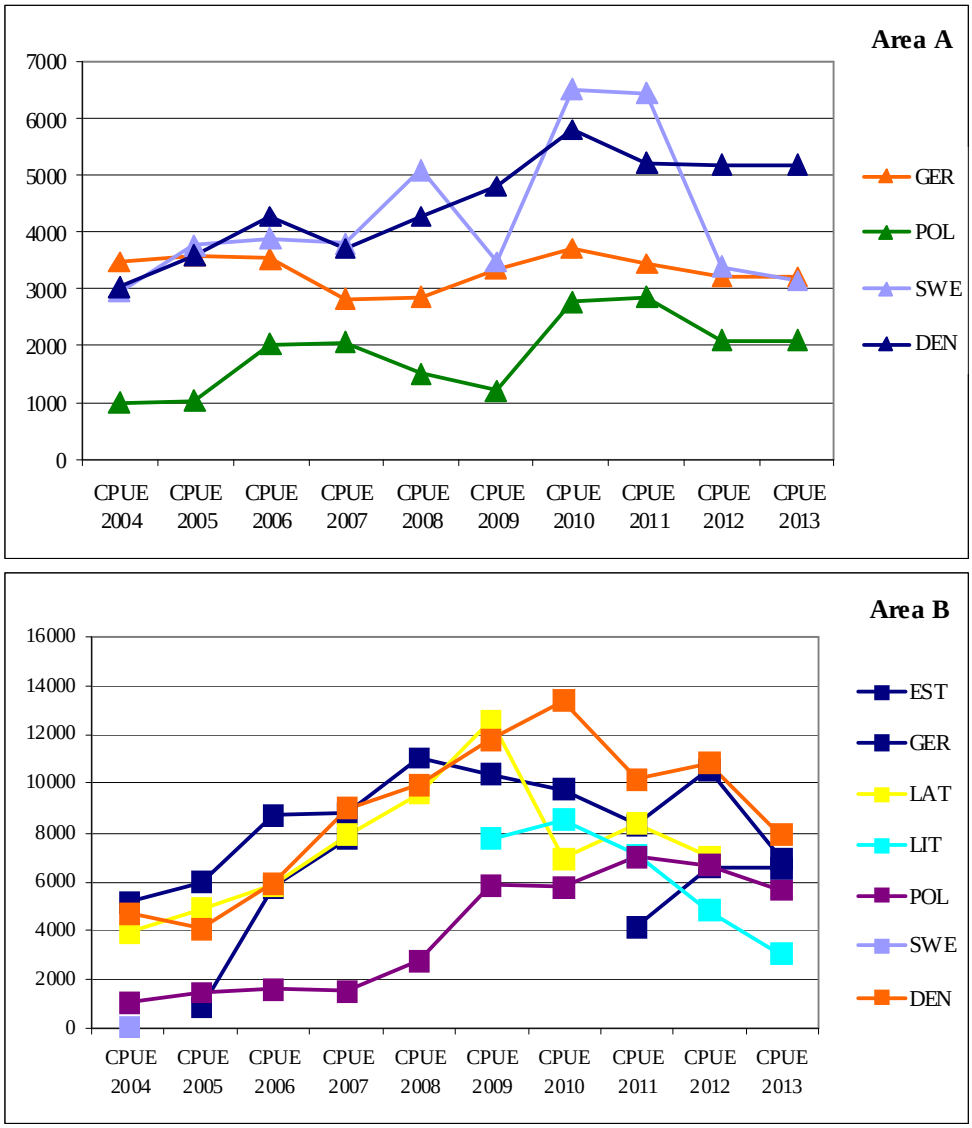


Figure 5.1.5.4. CPUE (g/kW*days) of cod in regulated otter trawl fisheries in the areas A and B, Baltic Sea by Member States, 2004-2013.

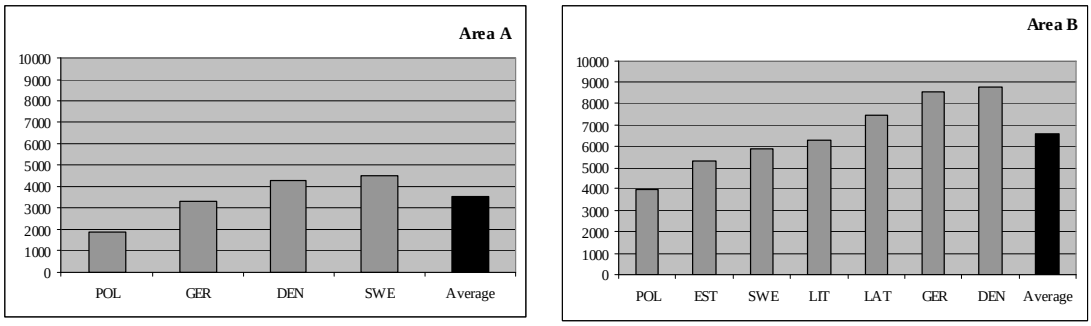


Figure 5.1.5.5. Average CPUE (g/kW*days) of cod in r-otter trawl fisheries by Member States in area A and area B (Sub-division 28.2. included), in 2004-2013.

5.1.6 ToR 2 Information on small boats (<8m by area)

An updated dataset on fishing effort and catches (landings and discards) of cod corresponding to vessels of the overall length below 8 m by gear and Member State were made available for EWG 14-13. Estonia did not provide effort data for this fleet segment.

5.1.6.1 Fishing effort of small boats by area, Member State and fisheries

According to data provided to the EWG 13-06/13-13 (see STECF 13-21, Table 5.1.6.1.1), in 2003-2012 the highest fishing effort was deployed by Finland, Sweden and Poland (86% of total fishing effort in that fleet segment in 2012). The dataset used by EWG 14-13, revealed that in 2013, Sweden, Poland and Denmark deployed approximately 88% of effort of small boats (Figure 5.1.6.1.1). The Finnish data on 2013 was uploaded to the database, but not used for analyses by the group since the method of effort calculation has changed in 2013 compared to the rest of the period (multi-fold counting of effort).

The majority of effort was distributed between non-regulated gill nets (46%), pots (23%) and regulated gill nets (12%) (Figure 5.1.6.1.2). The highest fishing effort was used in area B (56% of the total), which is quite different from the results of analysis from last year (STECF 13-21), due to the above mentioned problem with Finnish data. Last year's analysis showed on average 62% of effort was deployed in area C.

The effort deployed in the areas A and B (40% of the total), was distributed approximately equally between the areas, (Figure 5.1.6.1.3). Fishing effort in the Sub-division 28.2 represented <1% of all fishing efforts in area B in 2013.

Dynamics of fishing effort in areas A, B, C has shown that from 2004 onwards the effort decreased significantly in area B; in the areas A and C fishing effort fluctuated during the period with a slight decreasing trend.

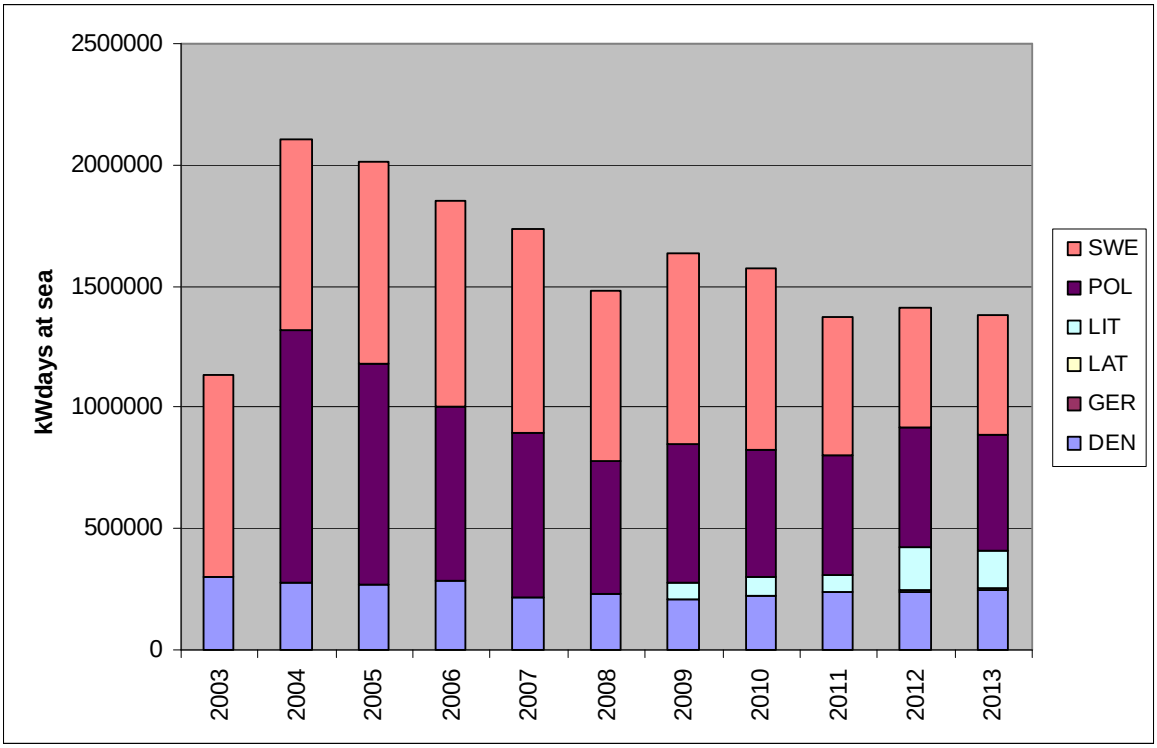


Figure 5.1.6.1.1. Distribution of fishing effort (kW days at sea) by Member States in 2003 – 2013. Small boats.

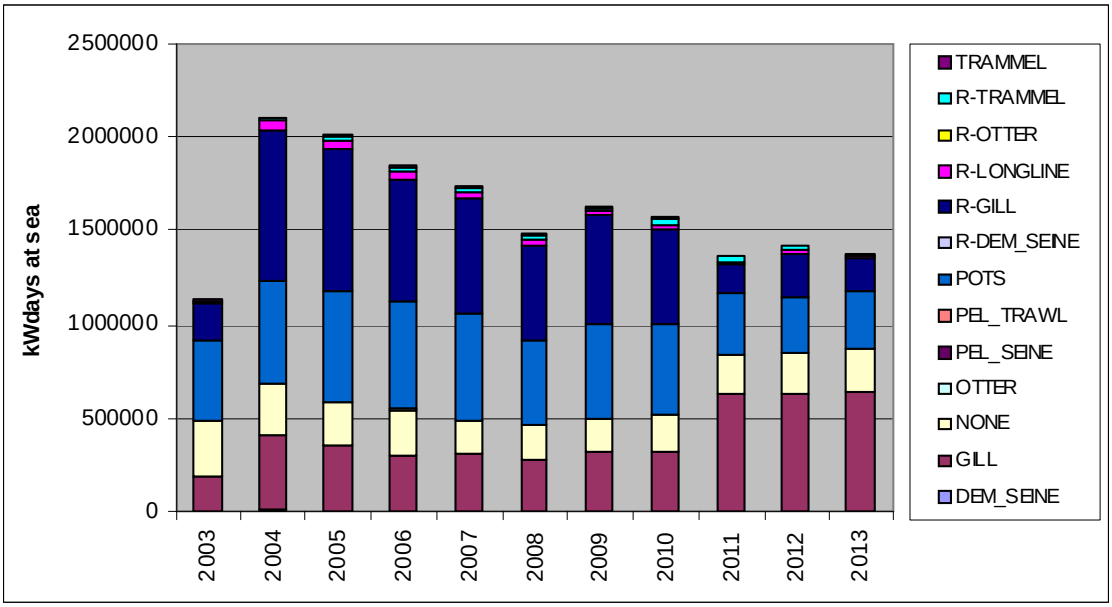


Figure 5.1.6.1.2. Distribution of fishing effort (kW days at sea) by different fishing gears in 2003 – 2013. Small boats.

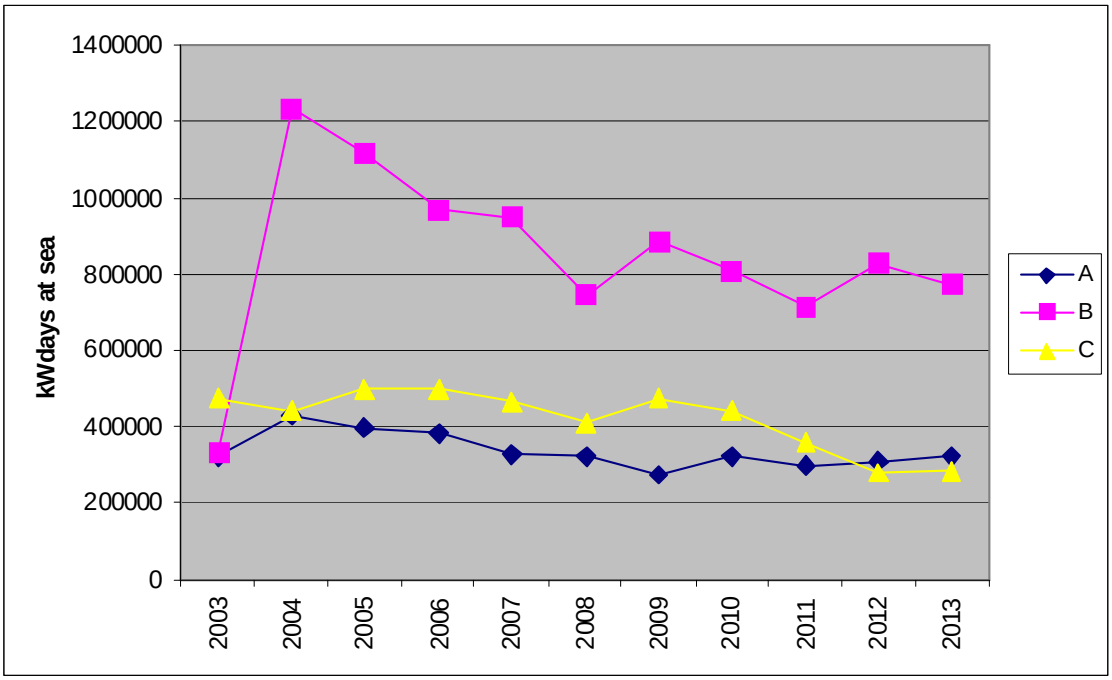


Figure 5.1.6.1.3. Dynamics of fishing effort (kW days at sea) in areas A, B, C. in 2003-2013. Finland excluded) Small boats.

Table 5.1.5.1.1 Fishing effort (kWdays at sea) of small boats by area, Member State and fisheries in 2004-2013.

ANNEX	REG AREA COD	REG GEAR COD	COUNTRY	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
BAL	A	DEM_SEINE	DEN			34			32				
BAL	A	DEM_SEINE	POL	1925	1035								
BAL	A	DEM_SEINE	SWE		16								
BAL	A	GILL	DEN	356	4026	7693	4976	4158	3089	1542	3049	2575	2560
BAL	A	GILL	POL	70644	49864	34033	43230	35850	21984	35190	40226	48359	54270
BAL	A	GILL	SWE	6271	383	885			1353	485	313	442	407
BAL	A	NONE	DEN	248064	204447	207229	144252	154790	142535	168846	184330	200985	217277
BAL	A	NONE	SWE	74	2813	2052	2659	2739	110	706			
BAL	A	OTTER	DEN	8		19		15					
BAL	A	OTTER	POL					21					
BAL	A	POTS	DEN		12524	13839	16716	11219	5304	5506	2272	2455	1775
BAL	A	POTS	POL	26730	20268	14502	15888	25323	21954	20576	13086	8841	11355
BAL	A	POTS	SWE	23886	25365	28788	23451	12845	23090	29839	8425	14312	10717
BAL	A	R-DEM_SEINE	DEN		8				32			32	
BAL	A	R-GILL	DEN	46	15677	15957	14579	21185	15050	12637	10723	11759	8618
BAL	A	R-GILL	GER								192		
BAL	A	R-GILL	POL	26014	19941	15700	18809	17544	15584	9865			
BAL	A	R-GILL	SWE	13884	15332	16650	15614	15720	7406	13074	15376	9473	9944
BAL	A	R-LONGLINE	DEN	621	2766	4149	6128	2210	996	982	798	793	8
BAL	A	R-LONGLINE	POL	658			29	97	753	102	173	826	
BAL	A	R-LONGLINE	SWE	2522	392								88
BAL	A	R-OTTER	DEN	23	79	121	54	158	63	232			
BAL	A	R-TRAMMEL	DEN		7361	9765	7424	10027	7100	8239	9080	2845	371
BAL	A	R-TRAMMEL	SWE	8118	10053	8683	7146	7657	7687	14540	9764	6458	4713
BAL	A	TRAMMEL	DEN		86	197	40	240	135	4	24	212	133
BAL	A	TRAMMEL	POL	3058	2708	2357	5414	1367	971	112			238
BAL	B	DEM_SEINE	POL	3111	959	31		59		82	1054		
BAL	B	DEM_SEINE	SWE					44					
BAL	B	GILL	DEN		56	19		23					
BAL	B	GILL	LAT						844	462	720	1013	2071
BAL	B	GILL	LIT						34504	30277	16793	48662	64326
BAL	B	GILL	POL	145108	109011	72210	71172	60146	51258	50365	397312	386491	368111
BAL	B	GILL	SWE	17940	17036	18779	21529	17550	27674	31454	28688	33454	35300
BAL	B	NONE	DEN	25493	22940	27175	22623	24599	29787	23237	25846	19750	15924
BAL	B	NONE	SWE	9		1014	4495	1100	1109	998		1798	
BAL	B	PEL_SEINE	POL								22		
BAL	B	PEL_TRAWL	POL		59								
BAL	B	POTS	DEN				8						
BAL	B	POTS	LIT								5018	4869	13640
BAL	B	POTS	POL	124796	107603	69044	59160	46886	44134	69259	29144	36719	41741
BAL	B	POTS	SWE	138253	149638	180982	205254	137653	162669	129568	85842	85807	83211
BAL	B	R-DEM_SEINE	LAT									0	0
BAL	B	R-GILL	DEN		1060	207	610	3465	3415	2783	45	79	297
BAL	B	R-GILL	LAT						1078	1979	3266	1694	2905
BAL	B	R-GILL	LIT						28808	42127	42080	127316	74520
BAL	B	R-GILL	POL	613889	572660	483645	447619	343626	398418	322538	22	40	
BAL	B	R-GILL	SWE	111340	86034	71269	79583	81410	68069	61424	42923	55460	52016
BAL	B	R-LONGLINE	DEN		223		718	2210	2163	1041	117	18	
BAL	B	R-LONGLINE	LIT						2170	3787	7999	2981	750
BAL	B	R-LONGLINE	POL	30606	27836	21358	19258	12028	14925	13281	8997	6490	6678
BAL	B	R-LONGLINE	SWE	12481	15858	8229	8089	6978	6209	5882	3589	4140	6027
BAL	B	R-OTTER	DEN					54					
BAL	B	R-TRAMMEL	SWE	3881	3238	3931	3740	3410	1530	11884	10915	9024	6423
BAL	B	TRAMMEL	POL	119			37	31					
BAL	B	TRAMMEL	SWE	6999	3406	11500	5455	4858	5238	5030	5433		
BAL	C	DEM_SEINE	SWE	824			526						
BAL	C	GILL	FIN	1152304	1000201	1033994	957521	888768	1057622	1188962	1101469	1087866	2343070
BAL	C	GILL	POL								102		
BAL	C	GILL	SWE	160268	173471	166700	168797	154373	185927	169655	139908	106857	108534
BAL	C	PEL_TRAWL	FIN										3292
BAL	C	NONE	SWE	257	1269	4126	2030	331	629			309	
BAL	C	OTTER	SWE			66							
BAL	C	POTS	FIN	505759	510189	483518	472706	527856	609518	586124	599198	664637	1433469
BAL	C	R-LONGLINE	FIN										78168
BAL	C	POTS	SWE	240193	275226	277286	251989	227243	247262	234842	191732	140684	152891
BAL	C	R-GILL	SWE	39858	49762	46841	40313	28534	38939	38007	25078	29051	23139
BAL	C	R-LONGLINE	SWE			3077							
BAL	C	TRAMMEL	SWE	912									
BAL	28.2	GILL	LAT						2460	1024		594	679
BAL	28.2	GILL	POL										113
BAL	28.2	R-DEM_SEINE	LAT						46	36			22
BAL	28.2	R-GILL	LAT						7387	5022	6518	3432	2687

5.1.6.2 Catches (landings and discards) of small boats by area, Member State and fisheries

STECF notes that discard observation and estimation are not comprehensive for small boats. Therefore the information available on the estimated catches is believed to represent landings rather than catches.

According to provided information (Table 5.1.6.2.1) the biggest cod landings on average were taken with small boats with non-regulated gill-nets (53%); non-regulated fishing gears named as "NONE" (29%) and regulated gill nets (14%) in 2013 (Figure 5.1.6.2.1). Other important gears for cod landings were regulated longlines (2%). By other types of fishing gears <1% of cod was fished only.

The landings of cod were taken almost equally from the areas A and B (Figure 5.1.6.2.2). The landings of cod in the area C constituted less than 0.1% of total landings. The landings of cod in the Sub-division 28.2 constituted 2% of all landings in the area B. The negative trend in total cod landings observed since 2005, reversed in 2012 mainly due to the increased landing figures in area A. In 2013, however, the landings decreased to the level of 2011. Comparison of the most recent period (2010-2012) can be characterized by increase of the share of non-regulated gillnet catches. The share of r-gill remains unchanged in 2011-2012 (Figure 5.1.6.2.1). Landings of cod corresponding to vessels of overall length less than 8 m constitute 4.2% of total catches in the area A, 1.6% - in the areas B+C and 2.2% - for all Baltic.

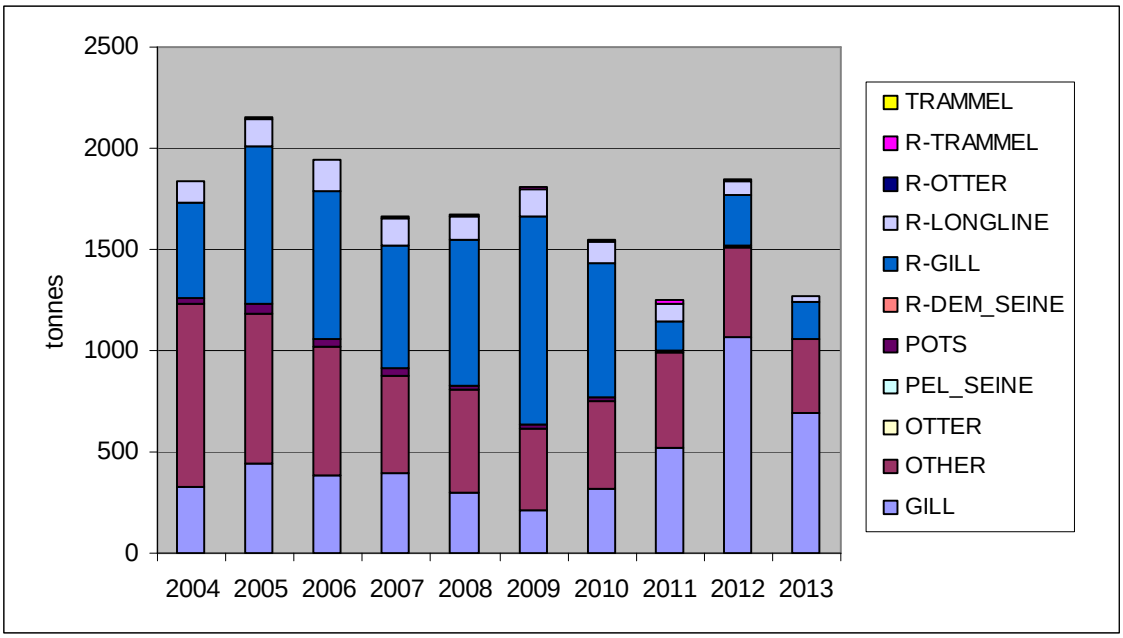


Figure 5.1.6.2.1 Distribution of cod landings taken by different gear types in 2004–2013. Small boats.

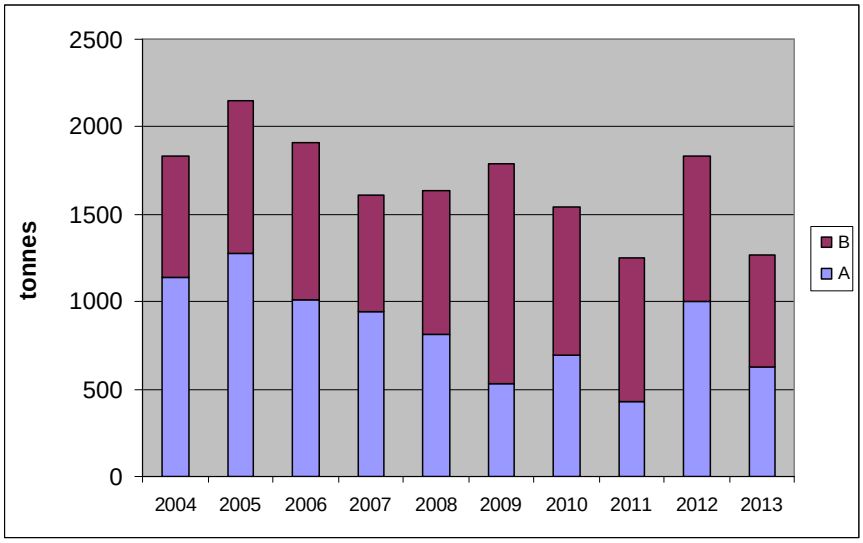


Figure 5.1.6.2.2. Dynamics of cod landings in 2004 – 2013 in the areas A and B. Small boats.

Table 5.1.6.2.1. Cod landings and discards taken by < 8 m vessels by area, gear type and Member State in 2004-2013 (t).

REG_AREA	COUNTRY	REG_GEAR	SPECON	2004 L	2004 D	2005 L	2005 D	2006 L	2006 D	2007 L	2007 D	2008 L	2008 D	2009 L	2009 D	2010 L	2010 D	2011 L	2011 D	2012 L	2012 D	2013 L	2013 D
28.2	EST	GILL	NONE			0.139		0.030		0.120		0.182		0.243		0.168		0.283		0.263		0.265	
28.2	EST	POTS	NONE			0.002						0.198		0.104		0.150		0.164		0.147		0.230	
28.2	EST	R-LONGLINE	NONE									0.004						0.013					
28.2	LAT	GILL	NONE							0.137		0.120				0.011				0.050			
28.2	LAT	R-DEM_SEINE	NONE									0.012				0.005							
28.2	LAT	R-GILL	NONE			8.417	0.226	39.050	1.032	50.342	4.046	35.520	0.263	8.461	0.002	5.850	0.004	3.650	0.008	4.422		3.375	
28.2	POL	GILL	NONE																			0.124	
A	DEN	GILL	NONE	1.564	0.000	9.493	0.621	9.268		11.897		16.020		5.864	0.000	0.698	0.000	2.492	0.011	1.068	0.013	0.403	0.000
A	DEN	NONE	NONE	717.510		594.038		478.029	9.731	345.447		329.187		227.117		290.895	0.000	337.403		352.823		295.254	0.000
A	DEN	OTTER	NONE					0.087				0.027											
A	DEN	POTS	NONE			20.175		9.164		9.549		1.061		1.485		6.090	0.000	2.333	0.049	5.117	0.083	1.111	7.282
A	DEN	R-DEM_SEINE	NONE											0.001	0.000								
A	DEN	R-GILL	NONE	0.013	0.001	115.975	5.658	71.609	0.016	68.508	0.018	76.074	0.209	47.482	2.054	29.899	3.204	26.826	0.001	33.286	0.507	32.499	0.725
A	DEN	R-LONGLINE	NONE	0.702	0.035	20.701	0.865	10.281		43.403	2.223	16.735		9.947	0.007	8.416	0.000	6.199	0.092	6.682	0.084	0.283	0.008
A	DEN	R-OTTER	NONE	0.736	0.057	0.019	0.021	0.193	0.017	0.050	0.004	0.570	0.044	0.022	0.004	0.022	0.086						
A	DEN	R-TRAMMEL	NONE			2.873	0.267	3.466		5.409		9.240	0.010	3.575	0.139	6.342	0.783	16.619	0.000	5.254	0.109	0.506	0.011
A	DEN	TRAMMEL	NONE			0.002		0.263				0.008		0.016								0.035	
A	GER	GILL	NONE	318.361	0.000	426.537	119.605	371.402		375.492		274.343		193.613	0.000	307.331	0.000			578.837	8.054	278.907	0.000
A	GER	NONE	NONE	0.019		2.784		0.291	0.000	0.289													
A	GER	POTS	NONE	0.064				0.139		0.351		0.093		0.300		1.470	0.000			1.327	0.011	0.137	0.458
A	GER	R-LONGLINE	NONE	2.881	0.003	3.798	0.085	3.461		2.289	0.000	1.157		0.198	0.000	0.032	0.000			2.472	0.060	0.679	0.049
A	POL	GILL	NONE	0.650	0.000	0.400	0.018	0.230		0.506		0.952		0.126	0.000			3.598	0.053				
A	POL	POTS	NONE	0.200						0.002													
A	POL	R-GILL	NONE	36.704	0.801	13.365	0.538	15.393	0.009	23.144	0.000	17.898	0.020	15.835	2.876	10.235	0.404						
A	POL	R-LONGLINE	NONE									0.370											
A	SWE	NONE	NONE	1.430		1.435		2.172	0.033	3.375		5.805		0.080		0.645	0.000						
A	SWE	POTS	NONE	9.587		13.549		6.745		13.212		4.280		2.671		1.932	0.000	2.736	0.062	2.861	0.059	2.309	15.375
A	SWE	R-GILL	NONE	38.975	0.582	41.163	1.868	30.316	0.009	39.144	0.034	62.261	0.223	23.732	1.169	26.380	0.522	28.962	0.512	14.813	0.219	11.712	0.203
A	SWE	R-LONGLINE	NONE	6.315	0.180	3.153	0.144															0.300	0.014
A	SWE	R-TRAMMEL	NONE	1.397	0.018	3.143	0.248	0.124				0.018	0.000	0.361	0.001	0.551	0.009	2.967	0.046	1.000	0.016	0.457	0.005
B	DEN	GILL	NONE									0.178											
B	DEN	NONE	NONE	185.557		147.197		152.503		136.781		169.280		180.255		136.908	0.000	130.394		87.022		67.053	0.000
B	DEN	R-GILL	NONE			3.814	0.123			6.270	1.167	23.087	0.908	21.622	1.014	10.153	1.363	0.027	0.001	0.189	0.010	0.884	0.056
B	DEN	R-LONGLINE	NONE			0.337	0.020			4.602		13.700	0.017	17.455	1.139	9.046	1.685	0.503	0.031	0.039	0.001		
B	DEN	R-OTTER	NONE									0.256	0.037										
B	EST	GILL	NONE			0.428	0.002	0.205		0.285		0.339		0.361	0.022	0.342	0.000	0.444	0.011	0.517	0.000	0.616	
B	EST	POTS	NONE			0.420		0.110		0.147		0.553		0.314	0.022	0.382	0.000	0.285	0.019	0.317	0.013	0.675	
B	EST	R-LONGLINE	NONE									0.004	0.000					0.013	0.001				
B	LAT	GILL	NONE					0.120				0.010								0.050	0.000	0.137	
B	LAT	R-GILL	NONE			6.885	0.211	62.759	2.055	68.333	10.830	30.885	1.536	7.076	0.334	10.703	0.297	9.696	0.681	15.246	0.732	9.830	0.763
B	LIT	POTS	NONE																			0.020	
B	LIT	R-GILL	NONE			107.680	0.000	60.534	0.000	55.577	0.000	48.012	0.000	30.700	0.000	48.200	0.000	25.100	0.000	50.300	2.628	48.297	3.873
B	LIT	R-LONGLINE	NONE					1.043				2.095	0.000	7.000	0.000	11.600	0.000	23.200	0.000	5.100	0.078	1.275	0.070
B	POL	GILL	NONE	5.646		1.748	0.020	4.235		1.440		2.072		5.916	0.237	6.826	0.000	510.719	12.818	484.779	0.000	406.845	
B	POL	PEL_SEINE	NONE															0.005					
B	POL	POTS	NONE	0.793		1.859		0.814		0.005		0.213		0.425	0.034	0.100	0.000	0.449	0.031	0.167	0.006	0.922	
B	POL	R-GILL	NONE	285.318	9.026	420.446	13.232	382.059	42.732	194.836	9.777	329.042	7.850	794.468	25.158	467.330	26.147			0.200	0.009		
B	POL	R-LONGLINE	NONE	32.274	0.411	52.882	0.952	102.677		66.001		43.577	0.088	82.984	6.355	67.851	8.823	50.686	2.340	34.350	1.227	15.069	0.826
B	SWE	GILL	NONE			0.140	0.000	0.001		0.001		0.090		0.055	0.002	0.044	0.000			0.020	0.001	0.010	
B	SWE	NONE	NONE	0.211				5.423		1.791		2.946		1.422		1.403	0.000			0.016		0.007	0.000
B	SWE	POTS	NONE	13.459		12.079		12.951		11.379		13.754		7.051	0.491	6.025	0.000	3.822	0.262	2.456	0.096	2.510	
B	SWE	R-GILL	NONE	117.982	1.689	59.795	2.192	74.419	2.492	96.492	5.871	99.658	4.526	86.209	4.777	63.722	1.771	54.547	3.303	58.127	1.963	76.596	5.074
B	SWE	R-LONGLINE	NONE	57.466	0.768	57.702	1.064	32.653		24.713		37.134	0.044	17.310	1.239	5.163	0.715	6.000	0.409	13.593	0.466	9.101	0.635
B	SWE	R-TRAMMEL	NONE	0.108	0.001	0.359	0.012	0.200		0.308		0.148		0.021	0.001	5.345		0.883	0.044	1.626	0.079	0.136	0.009
B	SWE	TRAMMEL	NONE	0.176	0.003	0.186	0.008	0.288				0.007		0.002		0.002							
C	EST	GILL	NONE			0.455	0.000	0.265	0.000	0.369	0.000	1.469	0.000	3.140	0.132	2.850	0.000	2.637	0.002	2.159	0.059	3.184	0.131
C	EST	POTS	NONE			0.012	0.000	0.005		0.036		0.038		0.114	0.020	0.121		0.117		0.108		0.135	
C	EST	R-GILL	NONE					0.004															
C	EST	R-LONGLINE	NONE											0.002						0.003			
C	FIN	GILL	NONE	0.061	0.000	0.063	0.000	0.124	0.000	0.045	0.000	0.268	0.000	0.643	0.009	1.058	0.020	0.836	0.005	0.463	0.011	0.665	0.006
C	FIN	POTS	NONE	0.009	0.000			0.002		0.005		0.004		0.086	0.001	0.123		0.012		0.058		0.001	
C	SWE	GILL	NONE	0.201	0.000	0.004	0.000			0.002	0.000	0.246	0.000			0.004	0.000			0.008	0.000		
C	SWE	POTS	NONE																				
C	SWE	R-GILL	NONE											0.117	0.008	0.004	0.000						

Table 5.1.6.2.2. Cod landings and discards taken by < 8 m vessels by area and gear type in 2004-2013 (t).

REG_AREA	REG_GEAR	SPECON	2004 L	2004 D	2005 L	2005 D	2006 L	2006 D	2007 L	2007 D	2008 L	2008 D	2009 L	2009 D	2010 L	2010 D	2011 L	2011 D	2012 L	2012 D	2013 L	2013 D
28.2	GILL	NONE			0.139	0.000	0.030	0.000	0.257	0.000	0.302	0.000	0.243	0.000	0.179	0.000	0.283	0.000	0.313	0.000	0.389	0.000
28.2	POTS	NONE			0.002	0.000					0.198	0.000	0.104	0.000	0.150	0.000	0.164	0.000	0.147	0.000	0.230	0.000
28.2	R-DEM_SEINE	NONE									0.012	0.000			0.005	0.000						
28.2	R-GILL	NONE			8.417	0.226	39.050	1.032	50.342	4.046	35.520	0.263	8.461	0.002	5.850	0.004	3.650	0.008	4.422	0.000	3.375	0.000
28.2	R-LONGLINE	NONE									0.004	0.000					0.013	0.000				
A	GILL	NONE	320.575	0.000	436.430	120.244	380.900	0.000	387.895	0.000	291.315	0.000	199.603	0.000	308.029	0.000	6.090	0.064	579.905	8.067	279.310	0.000
A	NONE	NONE	718.959	0.000	598.257	0.000	480.492	9.764	349.111	0.000	334.992	0.000	227.197	0.000	291.540	0.000	337.403	0.000	352.823	0.000	295.254	0.000
A	OTTER	NONE					0.087	0.000			0.027	0.000										
A	POTS	NONE	9.851	0.000	33.724	0.000	16.048	0.000	23.114	0.000	5.434	0.000	4.456	0.017	9.492	0.000	5.069	0.111	9.305	0.153	3.557	23.115
A	R-DEM_SEINE	NONE											0.001	0.000								
A	R-GILL	NONE	75.692	1.384	170.503	8.064	117.318	0.034	130.796	0.052	156.233	0.452	87.049	6.099	66.514	4.130	55.788	0.513	48.099	0.726	44.211	0.928
A	R-LONGLINE	NONE	9.898	0.218	27.652	1.094	13.742	0.000	45.692	2.223	18.262	0.000	10.145	0.007	8.448	0.000	6.199	0.092	9.154	0.144	1.262	0.071
A	R-OTTER	NONE	0.736	0.057	0.019	0.021	0.193	0.017	0.050	0.004	0.570	0.044	0.022	0.004	0.022	0.086						
A	R-TRAMMEL	NONE	1.397	0.018	6.016	0.515	3.590	0.000	5.409	0.000	9.258	0.010	3.936	0.140	6.893	0.792	19.586	0.046	6.254	0.125	0.963	0.016
A	TRAMMEL	NONE			0.002	0.000	0.263	0.000			0.008	0.000	0.016	0.000							0.035	0.000
B	GILL	NONE	5.646	0.000	2.316	0.022	4.561	0.000	1.726	0.000	2.689	0.000	6.332	0.261	7.212	0.000	511.163	12.829	485.366	0.001	407.608	0.000
B	NONE	NONE	185.768	0.000	147.197	0.000	157.926	0.000	138.572	0.000	172.226	0.000	181.677	0.000	138.311	0.000	130.394	0.000	87.038	0.000	67.060	0.000
B	PEL_SEINE	NONE															0.005	0.000				
B	POTS	NONE	14.252	0.000	14.358	0.000	13.875	0.000	11.531	0.000	14.520	0.000	7.790	0.547	6.507	0.000	4.556	0.312	2.940	0.115	4.127	0.000
B	R-GILL	NONE	403.300	10.715	598.620	15.758	579.771	47.279	421.508	27.645	530.684	14.820	940.075	31.283	600.108	29.578	89.370	3.985	124.062	5.342	135.607	9.766
B	R-LONGLINE	NONE	89.740	1.179	110.921	2.036	136.373	0.000	95.316	0.000	96.510	0.149	124.749	8.733	93.660	11.223	80.402	2.781	53.082	1.772	25.445	1.531
B	R-OTTER	NONE									0.256	0.037										
B	R-TRAMMEL	NONE	0.108	0.001	0.359	0.012	0.200	0.000	0.308	0.000	0.148	0.000	0.021	0.001	5.345	0.107	0.883	0.044	1.626	0.079	0.136	0.009
B	TRAMMEL	NONE	0.176	0.003	0.186	0.008	0.288	0.000			0.007	0.000	0.002	0.000	0.002	0.000						
C	GILL	NONE	0.262	0.000	0.522	0.000	0.389	0.000	0.416	0.000	1.983	0.000	3.783	0.141	3.912	0.020	3.473	0.007	2.630	0.070	3.849	0.137
C	POTS	NONE	0.009	0.000	0.012	0.000	0.007	0.000	0.041	0.000	0.042	0.000	0.200	0.021	0.244	0.000	0.129	0.000	0.166	0.005	0.136	0.000
C	R-GILL	NONE					0.004	0.000					0.117	0.008	0.004	0.000						
C	R-LONGLINE	NONE											0.002	0.000					0.003	0.000		

5.1.7 ToR 3 Fishing effort (days at sea) uptake analysis, by Member State, gear type and fishing area.

The EWG 14-13 was addressed the task of quantifying the evolution of the calculated maximum effort allocated to the cod fleet (ceiling of days using regulated gear types) in relation to the effort actually used by that fleet and was asked to highlight possible shifts between métiers.

The uptake of days at sea against the available days at sea by Member State and area for regulated and non-regulated gear types in 2008-2013 is presented in the Table 5.1.7.1. and in the Figures 5.1.7.1 – 5.1.7.3. The uptake of days at sea with regulated gears remained clearly below the available maximum in all areas and Member States. The average uptake of available days at sea over the time period 2008-2013 remained in the range of 36-38% in area A, 34-47% in the area B and 53-83% for the areas A and B combined. Only one Member State slightly exceeded the allowed limit for regulated gears in areas A and B combined in 2011 (Figure 5.1.7.3). No clear trend in average uptake could be revealed over the observed period.

Table 5.1.7.1. Uptake of available days at sea by Member State and area for regulated and nonregulated gear types in 2008-2013.

Reg	Area	MS	Category	Gear types	2008	2009	2010	2011	2012	2013
BAL	A	**GER**	**Limit**		**65339**	**53868**	**45612**	**41728**	**39772**	**38794**
BAL	A		**Uptake**	**Nonreg**	2034	889	863	609	448	491
BAL	A		**Uptake**	**Reg**	33414	25373	21911	23187	21568	20351
BAL	A	**DNK**	**Limit**		**69799**	**53265**	**41268**	**40587**	**35534**	**31948**
BAL	A		**Uptake**	**Nonreg**	1942	1789	1857	1890	2064	2730
BAL	A		**Uptake**	**Reg**	22923	17797	15505	15568	15139	13820
BAL	A	**POL**	**Limit**		**10035**	**7638**	**4887**	**2934**	**4401**	**4564**
BAL	A		**Uptake**	**Nonreg**	6438	5608	5234	5624	5726	5766
BAL	A		**Uptake**	**Reg**	872	925	466	315	592	939
BAL	A	**SWE**	**Limit**		**11373**	**7638**	**7240**	**6194**	**6683**	**6846**
BAL	A		**Uptake**	**Nonreg**	1618	2416	1870	1144	1080	1363
BAL	A		**Uptake**	**Reg**	5124	4007	3638	3003	2864	3177
BAL	B	**GER**	**Limit**		**534**	**160**	**160**	**320**	**320**	
BAL	B		**Uptake**	**Nonreg**				165	217	172
BAL	B		**Uptake**	**Reg**	139	32	24	79	25	
BAL	B	**DNK**	**Limit**		**3382**	**2080**	**3200**	**3200**	1920	**480**
BAL	B		**Uptake**	**Nonreg**	871	1215	967	460	259	145
BAL	B		**Uptake**	**Reg**	1530	1070	1361	2045	967	230
BAL	B	**EST**	**Limit**		**1602**	**960**	**480**	**1440**	**1440**	**640**
BAL	B		**Uptake**	**Nonreg**	869	960	1136	1111	3733	799
BAL	B		**Uptake**	**Reg**	221	89	58	521	180	153
BAL	B	**FIN**	**Limit**							**160**
BAL	B		**Uptake**	**Nonreg**						30
BAL	B		**Uptake**	**Reg**						65
BAL	B	**LIT**	**Limit**			**5120**	**4320**	**3840**	**4320**	**4640**
BAL	B		**Uptake**	**Nonreg**		397	433	522	254	489
BAL	B		**Uptake**	**Reg**		3006	2690	2526	3207	3246
	B									
BAL	B	**LAT**	**Limit**		**9968**	**9920**	**7840**	**6240**	**6880**	**6400**
BAL	B		**Uptake**	**Nonreg**	3527	2763	2650	2667	1793	1774
BAL	B		**Uptake**	**Reg**	4853	4567	3388	4518	4357	3426
BAL	B	**POL**	**Limit**		**55714**	**39520**	**41440**	**36000**	**46880**	**43040**
BAL	B		**Uptake**	**Nonreg**	6272	8824	8529	8837	8280	8928
BAL	B		**Uptake**	**Reg**	15244	11885	13845	11775	17024	18182
BAL	B	**SWE**	**Limit**		**27768**	**24800**	**20960**	**16960**	**18080**	**16800**
BAL	B		**Uptake**	**Nonreg**	7121	6680	5899	5031	3923	4455
BAL	B		**Uptake**	**Reg**	11654	10479	8190	5827	5015	4171
BAL	AB	**GER**	**Limit**		10035	11457	9412	4727	4401	**2934**
BAL	AB		**Uptake**	**Nonreg**	300	375	397	102		
BAL	AB		**Uptake**	**Reg**	5705	7347	6046	3581	3431	2010
BAL	AB	**DNK**	**Limit**		**23861**	**23316**	**17919**	**12551**	**14344**	**13203**
BAL	AB		**Uptake**	**Nonreg**	123	342	342	444	454	115
BAL	AB		**Uptake**	**Reg**	10494	11181	10496	8565	10580	10018
BAL	AB	**EST**	**Limit**		**446**	**402**	**362**		**326**	
BAL	AB		**Uptake**	**Nonreg**					22	
BAL	AB		**Uptake**	**Reg**	265	258	218		253	
BAL	AB	FIN	**Limit**		**892**	**1005**	**1267**	**1304**	**1304**	**326**
BAL	AB		**Uptake**	**Nonreg**						27
BAL	AB		**Uptake**	**Reg**						42
BAL	AB	**LIT**	**Limit**							
BAL	AB		**Uptake**	**Nonreg**		90	146	124		
BAL	AB			**Reg**						
BAL	AB	**LAT**	**Limit**		**669**	**402**	**1448**	**163**	**163**	**652**
BAL	AB		**Uptake**	**Nonreg**				113		
BAL	AB		**Uptake**	**Reg**	501	261	1166	223	151	604
BAL	AB	**POL**	**Limit**		**33896**	**16482**	**10317**	**10921**	**15485**	**16300**
BAL	AB		**Uptake**	**Nonreg**	3050	3469	1622	3449	3091	2964
BAL	AB		**Uptake**	**Reg**	12029	6780	5874	6974	10343	10223
BAL	AB	**SWE**	**Limit**		**16725**	**15075**	**11222**	**14181**	**13855**	**11247**
BAL	AB		**Uptake**	**Nonreg**	3606	3573	2045	2719	2185	1935
BAL	AB		**Uptake**	**Reg**	7707	7970	6545	10280	9767	8099

Figure 5.1.7.1. Fishing area A. Uptake of available days at sea by Member States and regulated and non-regulated gears in 2008-2013.

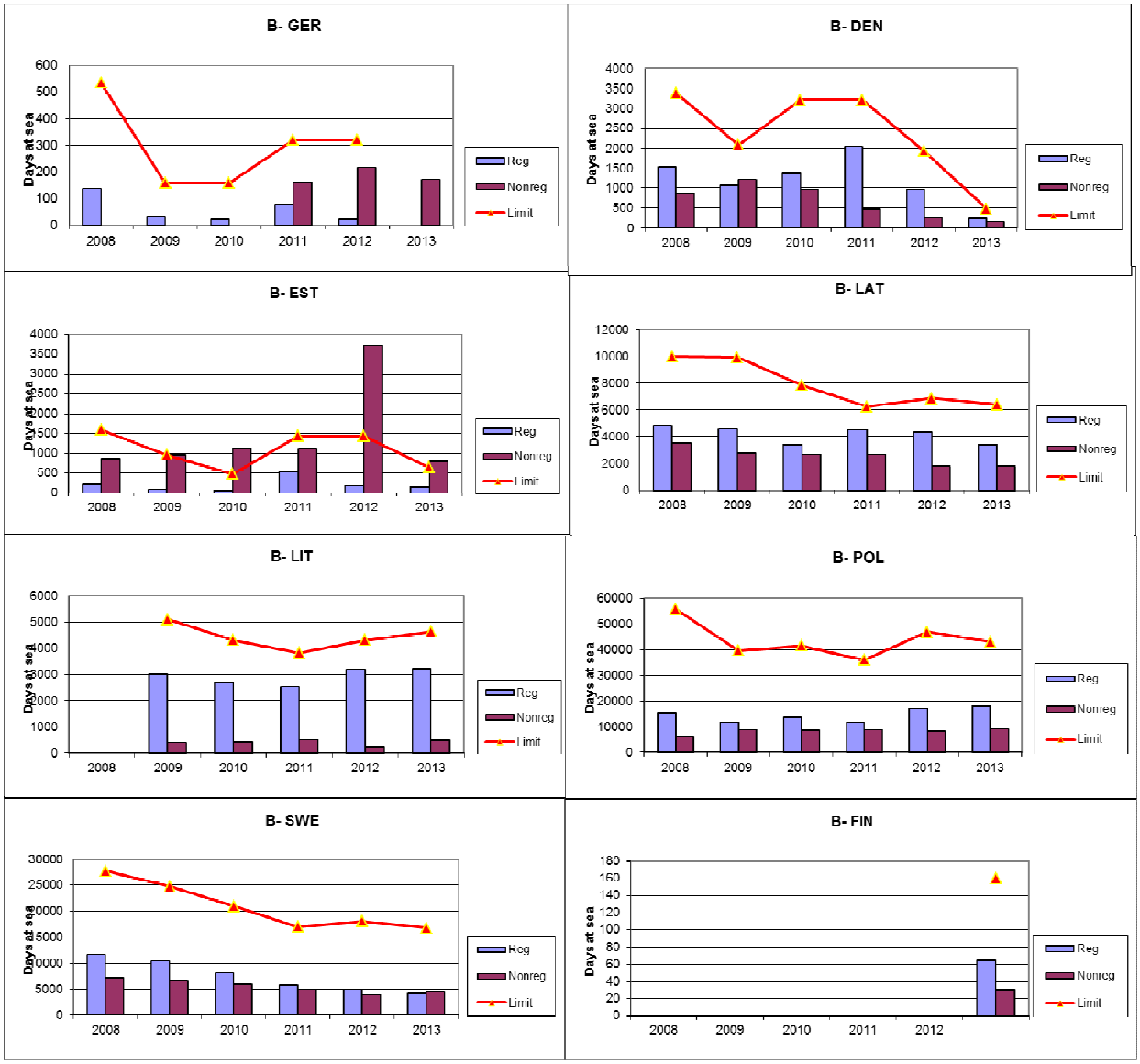


Figure 5.1.7.2. Fishing area B. Uptake of available days at sea by Member States and regulated and non-regulated gears in 2008-2013.

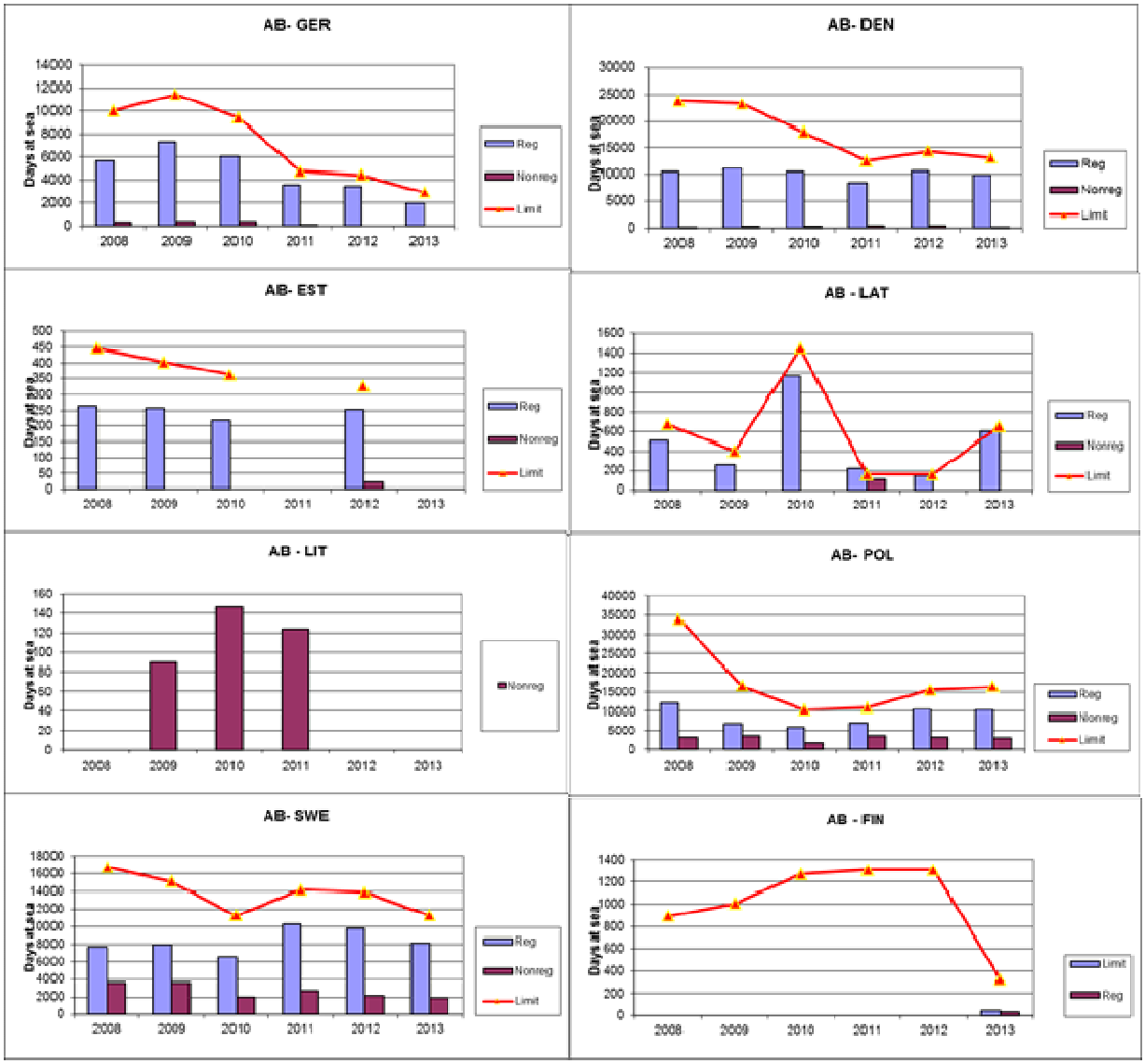


Figure 5.1.7.3. Fishing areas A and B combined. Uptake of available days at sea by Member States and regulated and non-regulated gears in 2008-2013.

5.1.8 ToR 4 Evaluation of fully documented fisheries FDF

5.1.8.1 Fishing effort of FDF vessels by area, Member State and fisheries in comparison with fisheries not working under FDF provisions

Only Denmark has reported FDF fisheries in the Baltic in 2012 in both management areas A (Western Baltic) and B (Eastern Baltic). There was no information on FDF provided to the EWG 14-06/14-13. Therefore, no new analyses were performed by the group. Table 5.1.8.1.1 provides the information on effort deployed in fully documented fishery, which was made available to EWG 13-06. The fully documented fishery represented on average 2.3% of the total Danish regulated effort deployed in both areas A and B in 2012. FDF share in overall effort used with respective gear types was generally below 1%. Only for regulated demersal seine in area A the share of FDF reached 37%.

Table 5.1.8.1.1 Danish fishing effort (kW*days at sea) in Fully Documented Fishery (FDF) and total (all countries) non-FDF effort in 2012 by areas A (Western Baltic) and B (Eastern Baltic).

Area	Specon	MS	REG Gear_COD	FDF Effort	All Non-FDF effort	%
A	FDFBAL	DNK	PEL_TRAWL	880	548950	0.2
A	FDFBAL	DNK	r-DEM_SEINE	33798	91495	36.9
A	FDFBAL	DNK	r-OTTER	7810	2475071	0.3
B	FDFBAL	DNK	PEL_TRAWL	7040	5005154	0.1
B	FDFBAL	DNK	r-OTTER	33660	5321587	0.6
B	FDFBAL	DNK	r-PEL_TRAWL	770	198883	0.4

5.1.8.2 Catches (landings and discards) of cod and other species taken by FDF fisheries by area, Member State and fisheries in comparison with fisheries not working under FDF provisions

Only Denmark has reported FDF fisheries in the Baltic in 2012 in both areas A (Western Baltic) and B (Eastern Baltic). There was no information on FDF provided to the EWG 14-06. The reported Danish landings of cod from the fully documented fishery with regulated gears amounted to 333 t in area A and 406 t in area B (total 739 t) in 2012 (Table 5.1.3.5.). The landings from FDF covered 4% from the reported cod landings in these areas in 2012. FDF reported about 42 t of cod discards in 2012.

5.1.8.3 Comparative analysis of cod selectivity by FDF fisheries and non-FDF fisheries

Only Denmark has reported FDF fisheries in the Baltic in 2012 in both areas A (Western Baltic) and B (Eastern Baltic). There was no information on FDF provided to the EWG 14-06. The analysis presented is therefore as first conducted by STECF EWG 13-06 and STECF EWG-13-13. STECF EWG 13-06 interpreted the task as to compare age specific fishing patters (partial Fs by fishery and age group). As a first step into the requested analyses, STECF EWG 13-06 estimated and presented the landing and discards at age by FDF and non-FDF fisheries. STECF EWG 13-06 noted that any attempt to compare the selectivity of FDF and non-FDF fisheries implies that Member States sampling and raising procedures to estimate the specific age compositions of landings and discards are specific for these fisheries. Since the data of Danish FDF in 2012 only were made available, the EWG decided to evaluate the age composition of landings and discards of comparative gear types from FDF and non FDF. STECF EWG-13-13 further elaborated the available information looking at different patterns in landings and discard age structures observed in areas A and B. The findings on both non-FDF and FDF fisheries for the Western and Eastern cod stocks are presented below in Sections 5.1.8.3.1 and 5.1.8.3.2 respectively.

5.1.8.3.1 ToR 4 Cod selectivity by FDF fisheries and non-FDF fisheries of the Western Baltic cod

Table 5.1.8.1 and Figure 5.1.8.1 provide the overview of age composition of landings taken with regulated gears in FDF and non-FDF in area A (Sub-divisions 22-24, Western Baltic cod).

The main gears in the area A (r-otter and r-demersal seine) show now difference in age composition of cod landings from FDF and non-FDF fisheries. In both gears landings are dominated by the age groups 3-5. However, the age composition of discards shows certain fisheries-dependent pattern in case of r-otter, where the share of age group 2 in non-FDF significantly exceeded the respective value of FDF. In case of r-demersal seine, the discard structure of both fisheries was identical.

The same age groups dominate also the age composition of discards and thus hint at a clear difference in age composition in age range 2-5. The age composition of landings from non-FDF fisheries were shifted to the younger age groups indicating at the substantial difference in selectivity. However, the data should be taken with caution because of potential systematic differences in age reading in areas A and B.

Table 5.1.8.1. Age composition of cod landings and discards in FDF and non-FDF in area A (Western Baltic) in 2012 t.

Landings

REG-AREA	ANNEX	REG_GEAR	SPECON	Landings t	Landings no	AGE 0L	AGE 1L	AGE 2L	AGE 3L	AGE 4L	AGE 5L	AGE 6L	AGE 7L	AGE 8L	AGE 9L	AGE 10L	AGE 11L
A	Bal	PEL_TRAWL	none	10.774	10.472	0	0	1.01	2.404	4.841	1.809	0.364	0.039	0.005	0	0	0
A	**FDFBAL**	**PEL_TRAWL**	**FDFBAL**	**0.071**	**0.079**	**0**	**0**	**0**	**0.006**	**0.047**	**0.023**	**0.002**	**0.001**	**0**	**0**	**0**	**0**
A	Bal	r-DEM_SEINE	none	437.903	414.98	0	0	7.779	104.453	186.686	91.594	23.208	1.013	0.157	0.09	0	0
A	**FDFBAL**	**r-DEM_SEINE**	**FDFBAL**	**256.52**	**244.024**	**0**	**0**	**6.379**	**76.209**	**98.828**	**48.519**	**13.515**	**0.478**	**0.061**	**0.035**	**0**	**0**
A	Bal	r-OTTER	BACOMA	4015.657	3848.549	0	218.386	962.984	1310.275	1188.712	141.655	21.941	3.506	0.85	0.161	0.079	0
A	Bal	r-OTTER	none	6262.26	6181.5	0	0	45.139	1106.915	3216.977	1483.365	296.954	27.777	3.542	0.831	0	0
A	Bal	r-OTTER	T90	172.84	189.386	0	0	9.024	42.476	109.162	23.961	3.762	0.73	0.218	0.042	0.011	0
A	**FDFBAL**	**r-OTTER**	**FDFBAL**	**76.642**	**95.916**	**0**	**0**	**0.902**	**25.494**	**49.338**	**17.556**	**2.09**	**0.517**	**0.019**	**0**	**0**	**0**

Discards

REG-AREA	ANNEX	REG_GEAR	SPECON	Discards t	Discards no	AGE 0D	AGE 1D	AGE 2D	AGE 3D	AGE 4D	AGE 5D	AGE 6D	AGE 7D	AGE 8D
A	Bal	PEL_TRAWL	none	1.477	3.677	0	0.045	1.494	1.454	0.606	0.078	0	0	0
A	**FDFBAL**	**PEL_TRAWL**	**FDFBAL**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
A	Bal	r-DEM_SEINE	none	8.74	21.686	0	0.068	1.747	9.791	9.033	0.832	0.215	0	0
A	**FDFBAL**	**r-DEM_SEINE**	**FDFBAL**	**0.519**	**1.287**	**0**	**0.004**	**0.104**	**0.581**	**0.536**	**0.05**	**0.012**	**0**	**0**
A	Bal	r-OTTER	BACOMA	331.956	788.075	3.961	104.727	355.818	243.595	70.96	8.942	0.046	0.026	0
A	Bal	r-OTTER	none	324.825	802.898	0	2.455	76.068	363.408	323.628	29.627	7.712	0	0
A	Bal	r-OTTER	T90	39.223	97.411	0	1.683	40.541	37.54	15.669	1.973	0.003	0.002	0
A	**FDFBAL**	**r-OTTER**	**FDFBAL**	**4.654**	**11.549**	**0**	**0.037**	**0.929**	**5.215**	**4.811**	**0.442**	**0.115**	**0**	**0**

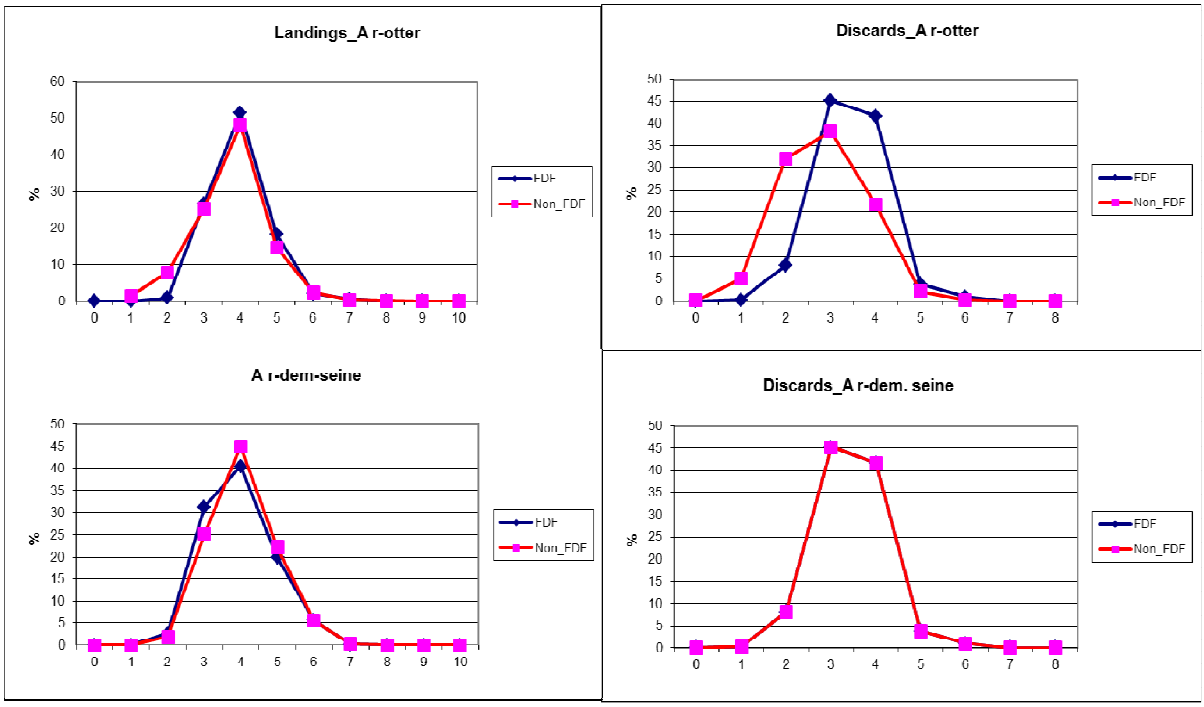


Figure 5.1.8.1. Age composition of cod landings (left panels) and discards from Fully Documented Fishery (FDF) and non-FDF in area A in 2012.

5.1.8.3.2 ToR 4 Cod selectivity by FDF fisheries and non-FDF fisheries of the Eastern Baltic cod

Table 5.1.8.2 and Figure 5.1.8.2 provide the overview of age composition of landings taken with regulated gears in FDF and non-FDF in area A (Sub-divisions 25-28, Eastern Baltic cod). The main comparable gears (r-otter and r-gill) show a clear difference in age compositions over the ages 3-5. The age composition of landings in non-FDF was shifted towards the younger age groups in both gear types indicating potential difference in selectivity. The main difference occurs in age group 3, which is significantly higher represented in the non-FDF. The similar pattern can be observed in the discard composition.

Table 5.1.8.2. Age composition of cod discards in FDF and non-FDF in area B (Eastern Baltic) in 2012, t.

Landings

REG_AREA	ANNEX	REG_GEAR	SPECON	Landings t	Landings no	AGE 0L	AGE 1L	AGE 2L	AGE 3L	AGE 4L	AGE 5L	AGE 6L	AGE 7L	AGE 8L	AGE 9L	AGE 10L	AGE 11L
B	Bal	PEL_TRAWL	none	55.798	72.29	0	0	1.259	39.147	26.943	3.727	1.202	0.008	0.002	0.002	0	0
B	**FDFBAL**	**PEL_TRAWL**	**FDFBAL**	**0.008**	**0.014**	**0**	**0**	**0**	**0.001**	**0.007**	**0.005**	**0.001**	**0**	**0**	**0**	**0**	**0**
B	Bal	r-OTTER	BACOMA	14979.899	17813.862	0	0	829.551	8910.497	4990.605	1341.699	1023.244	409.885	224.181	60.009	24.191	0
B	Bal	r-OTTER	none	20418.548	27254.002	0	0	162.732	4555.018	10961.636	8953.221	2222.529	308.05	84.665	4.709	1.048	0.394
B	Bal	r-OTTER	T90	752.612	984.9	0	0	43.951	579.521	296.209	49.003	14.449	1.396	0.278	0.077	0.016	0
B	**FDFBAL**	**r-OTTER**	**FDFBAL**	**404.892**	**536.325**	**0**	**0**	**0.49**	**37.005**	**224.276**	**211.689**	**52.469**	**8.022**	**2.235**	**0.108**	**0.031**	**0**
B	Bal	r-PEL_TRAWL	BACOMA	1158.093	1185.22	0	0	118.507	534.927	415.564	98.779	15.818	0.944	0.673	0.008	0	0
B	Bal	r-PEL_TRAWL	none	108.386	149.793	0	0	0.316	12.76	65.149	58.022	11.822	1.515	0.183	0.026	0	0
B	**FDFBAL**	**r-PEL_TRAWL**	**FDFBAL**	**1.436**	**1.964**	**0**	**0**	**0**	**0.075**	**0.822**	**0.863**	**0.176**	**0.025**	**0.003**	**0**	**0**	**0**

Discards

REG_AREA	ANNEX	REG_GEAR	SPECON	Discards t	Discards no	AGE 0D	AGE 1D	AGE 2D	AGE 3D	AGE 4D	AGE 5D	AGE 6D	AGE 7D	AGE 8D
B	Bal	PEL_TRAWL	none	17.13	47.281	0	0.082	5.167	34.663	7.367	0.002	0	0	0
B	**FDFBAL**	**PEL_TRAWL**	**FDFBAL**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
B	Bal	r-OTTER	BACOMA	3577.229	9370.848	0	39.256	1252.61	5665.798	1763.891	449.61	174.155	24.335	1.193
B	Bal	r-OTTER	none	2763.958	7053.126	0	8.774	530.606	2346.346	2650.029	1369.514	145.943	1.914	0
B	Bal	r-OTTER	T90	229.499	609.222	0	3.871	104.657	402.45	96.155	2.053	0	0.019	0.017
B	**FDFBAL**	**r-OTTER**	**FDFBAL**	**36.693**	**94.92**	**0**	**0.167**	**2.642**	**16.667**	**46.657**	**25.983**	**2.768**	**0.036**	**0**
B	Bal	r-PEL_TRAWL	BACOMA	200.851	513.588	0	1.734	81.013	375.861	54.87	0.11	0	0	0
B	Bal	r-PEL_TRAWL	none	15.292	39.405	0	0.092	2.665	13.41	14.825	7.595	0.811	0.007	0
B	**FDFBAL**	**r-PEL_TRAWL**	**FDFBAL**	**0.174**	**0.45**	**0**	**0.001**	**0.013**	**0.079**	**0.221**	**0.123**	**0.013**	**0**	**0**

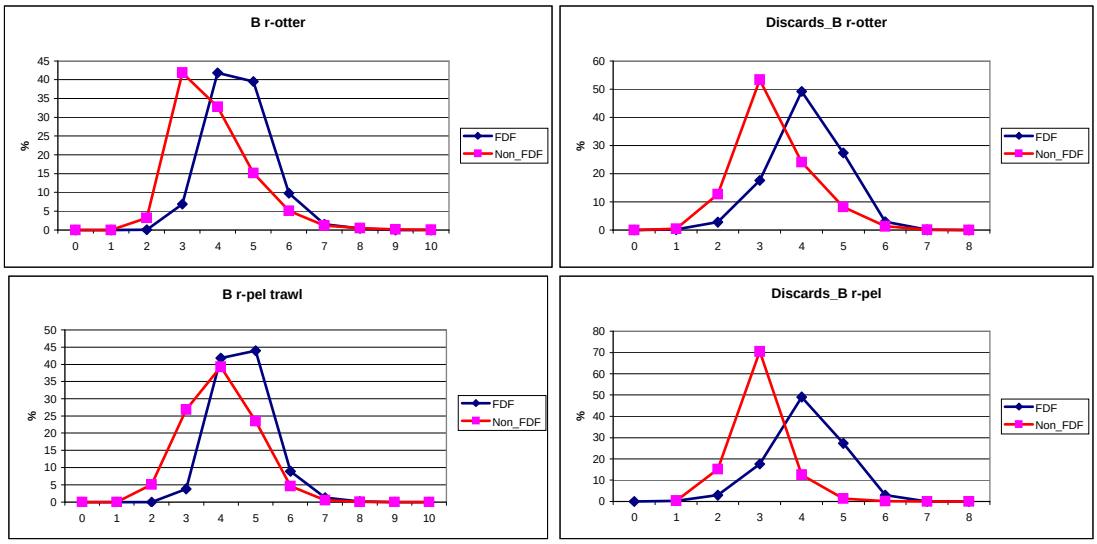


Figure 5.1.8.2. Age composition of cod landings (left panels) and discards from Fully Documented Fishery (FDF) and non-FDF in area B in 2012.

The ICES Baltic Fisheries Assessment Working Group has reiterated in its reports that the age composition data of Eastern Baltic cod from both the commercial catches and the survey suffer from severe in-consistencies, between countries and years (ICES 2013, 2014). ICES has tried to solve the problem by establishing a special study groups. For example the Report of the ICES Study Group on Baltic Cod Age Reading (ICES 2000) presents the observed differences in age reading results between countries, indicating that the age reading countries fall into 3 groups showing similar results: 1) Sweden+Germany, 2) Denmark and 3) Poland+Latvia+Russia. The different age interpretation can also be observed in CANUM data presented in the Reports of the Baltic Fisheries Assessment Working Group (ICES 2006, 2012, 2013).

Therefore, the presented above results from the FDF analysis should be taken with caution because of potential differences in age reading in areas A and B. Differently from the area A, the age reading of cod from non-FDF in area B is executed in a number of institutes, with distinct differences in interpretation of cod otoliths. As the FDF data currently stem from Denmark it may imply that differences between FDF and non-FDF age compositions in area B (Eastern stock) may at least partly result from potential inconsistencies in age interpretation between Denmark and other Baltic countries.

Since the majority (56% of otter trawl landings) in area A stem from Denmark, as well as the age readings, the potential country effect does not emerge here.

5.1.9 ToR 5 Spatio-temporal patterns in effective effort by area and fisheries

According to available effort data in units of fished hours, the spatial distribution of deployed otter trawl effort (Figure 5.1.9.1) did not show any particular trend over the time series. During 2003–2005 the highest fishing effort concentration was observed in areas of Bornholm Deep and in the northern part of Polish EEZ. However, the effort seems to be distributed more evenly across the areas A-C after 2006.

The gillnet effort has been concentrated in areas A and B without any clear temporal pattern (Figure 5.1.9.2). During 2003–2013 period the biggest fishing efforts concentration was in the Polish coastal areas.

The Figure 5.1.9.3 shows the general distribution pattern of another big contributor of effort in the Baltic – the pelagic trawls. The distribution pattern indicates the high concentration of effort in the areas of Bornholm and Gdansk Deep as well as in the Sub-division 28.2 in 2003-2007. The pelagic trawl effort was distributed rather evenly in the most recent years. This can be explained with northward distribution of sprat stock in recent years (ICES, 2012, 2013).

A full set of effort distribution figures, will be made available on the web page of the EWG 14-06/14-13.

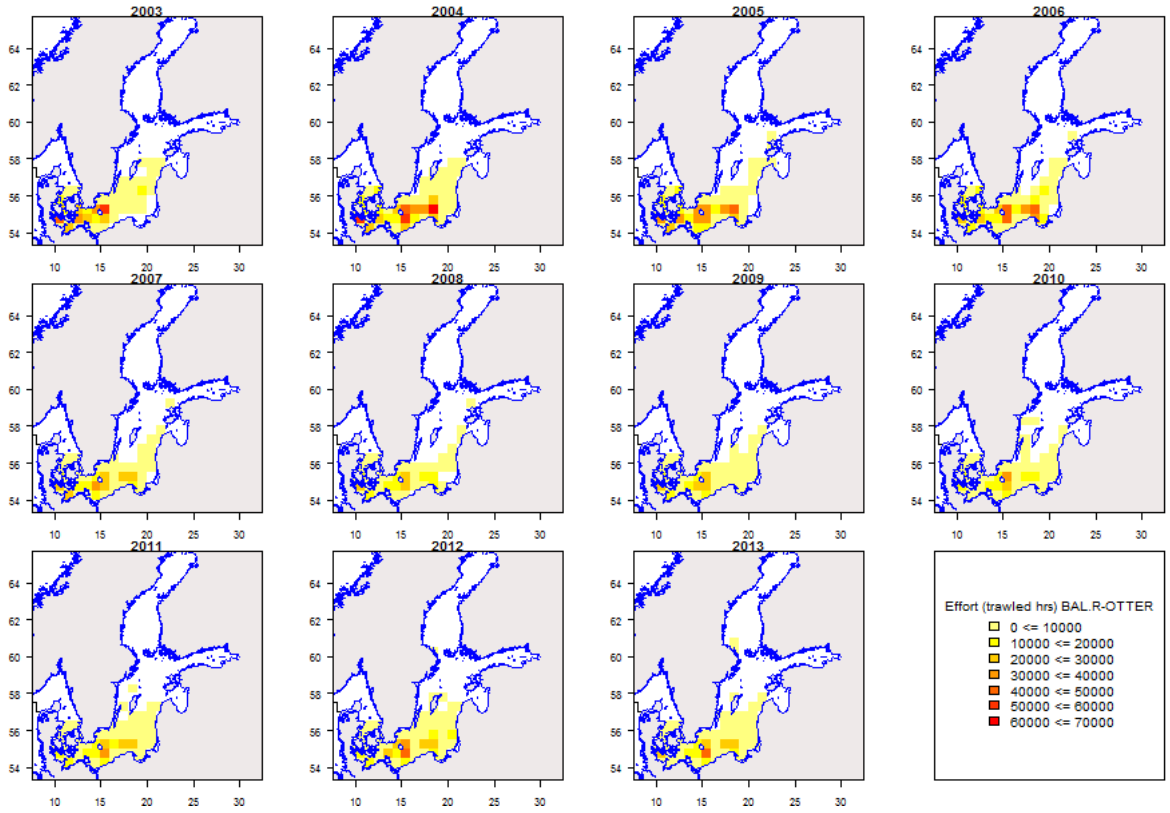


Figure 5.1.9.1 Spatial distribution of effective effort (trawled hours) r-OTTER 2003-2013. There was no data reported on the spatial distribution from Finland.

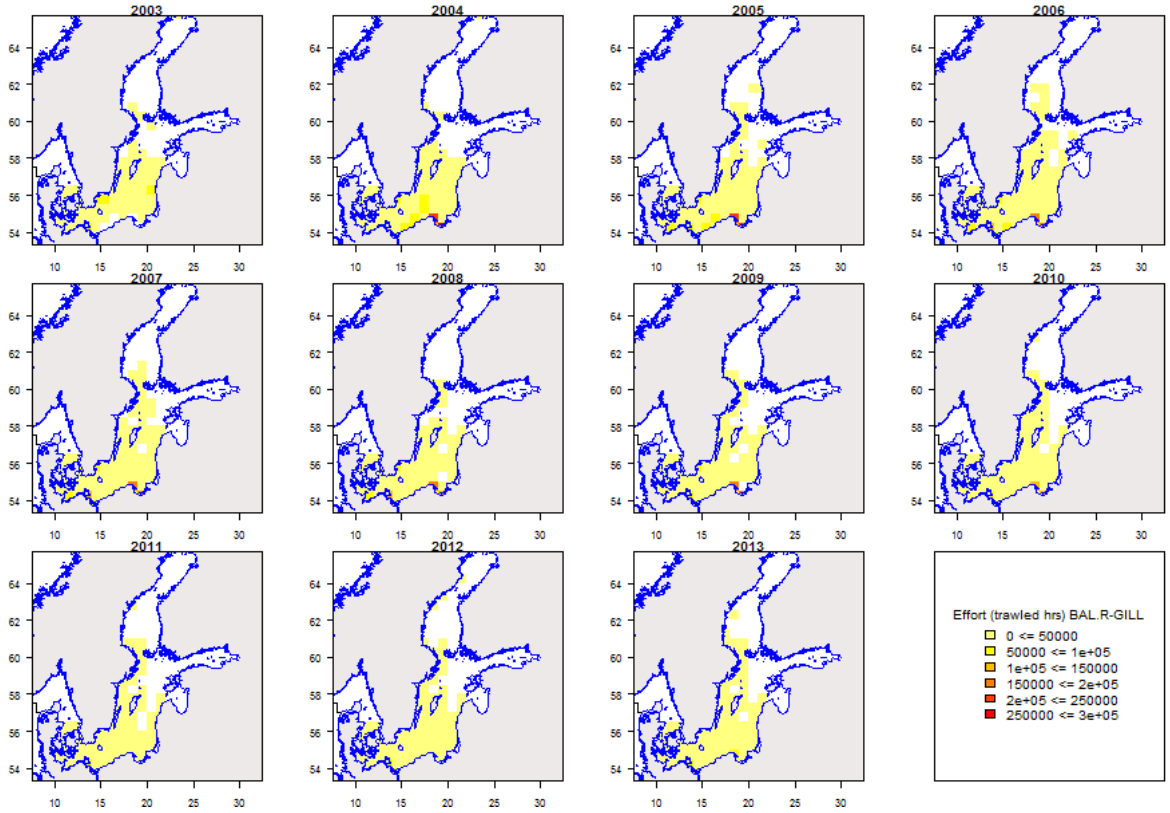


Figure. 5.1.9.2 Spatial distribution of effective effort (fishing hours) r-Gill 2003-2013. There was no data reported on the spatial distribution from Finland.

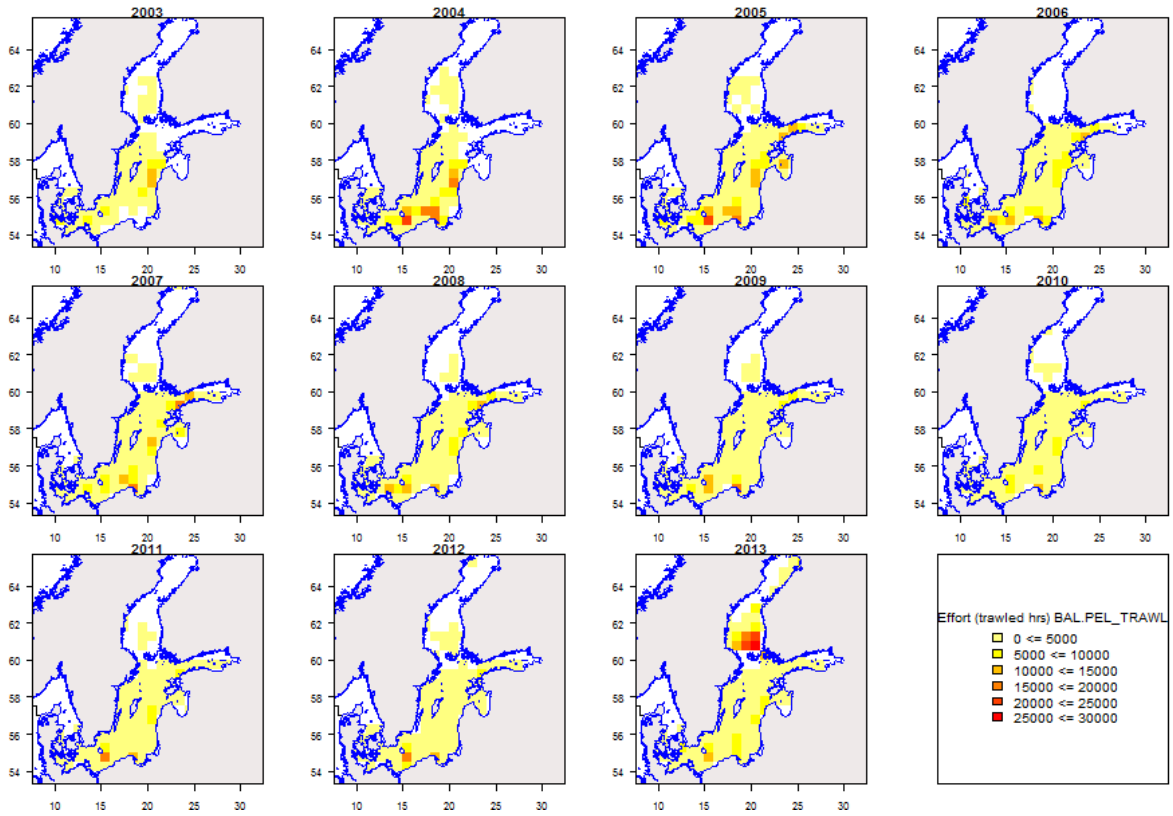


Figure 5.1.9.3 Spatial distribution of effective effort (fishing hours) pelagic trawls 2003-2012. There was no data reported on the spatial distribution from Finland.

5.1.10 ToR 6 Remarks on quality of catches and discard estimates

Discard estimates were available from all Baltic Member States. It seems that the sampling intensity, particularly in passive gears, was generally lower as compared to active gears. This might imply that even if all major métiers were sampled, the discard estimate is an underestimate compared to the real discard. Therefore, variation in discard figures from year to year must be taken with caution and may not reflect the true exploitation pattern of the fishery. The EU Data Collection Framework (DCF) defines which metiers (Level 6) are to be sampled in a country following the rules of the fisheries metiers ranking system. The sampling strata include also Baltic ICES Sub-divisions (not ICES rectangles) and months. Independently of the uncertainties in the discard estimates available to the STECF EWG, the changes in discard level reflect relatively well the year-class strength abundance of the Eastern Baltic cod stock, which is in particular evident for the active gears (see Figure 5.1.3.1). Also discard ratio estimates for the Member States for the same year and fishing gears are close and follow the same trends across years studied.

5.1.11 ToR 7 Estimation of partial fishing mortalities of cod by area, Member State and fisheries and correlation between partial cod mortality and fishing effort by area, Member State and fisheries

5.1.11.1 Western Baltic cod in area A

The STECF EWG 14-13 presents partial fishing mortalities by fisheries using regulated gears and Member States in relation to the estimated fishing mortality by ICES (2014) and the catches (Table. 5.1.11.1.1), landings (Table. 5.1.11.1.2) and discards volumes (Table. 5.1.11.1.3), respectively. The full list of partial fishing mortalities of all fisheries can be downloaded from the EWG's web page. The anticipated trend in fishing mortality and fishing effort in units of kW days at sea as derived from the cod plan is also presented in the upper parts of these tables. The sustainable exploitation target is defined as F_{MSY}= 0.26. The trends in fishing effort in units of kWdays at sea of the relevant fisheries are also presented in Tables 5.1.11.1.1-3. The correlations between partial F and fishing effort are shown in Fig. 5.1.11.1.1.

It can be concluded from the estimated F in 2013 (Tab. 5.1.11.1.1) that the stock is subject to overfishing and that the annual F reductions are not following the plan. Discard mortality is generally low (Tab. 5.1.11.1.3). In recent years the effort regulated fisheries contribute more than 82% to the total fishing mortality.

STECF EWG 14-06/14-13 note that the correlations between the summed partial Fs of regulated fisheries for catch and landings of the major fisheries and their estimated fishing efforts are significant. The correlation between the rather low partial Fs of discards and effort is not significant, but discarding is considered a minor issue in the Western Baltic anyway. The partial Fs of most of the Member States fisheries using regulated gears are also closely correlated with their specific effort estimates in kW days at sea. This indicates that effective fisheries management by fishing effort in units of kWdays at sea appears possible, also as an auxiliary measure to catch constraints and technical measures.

Table 5.1.11.1.1 Western Baltic cod in area A. The upper left part of the table lists F trajectories from the cod management plan as well as estimated F values from the ICES 2014 assessment. The lower left part lists the estimated partial F based on estimated catches from the regulated fisheries. The right part of the table lists the respective trends in fishing effort (kW days at sea). A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

2008 moving reference year annual F reductions by 10 percent until F<=0.6, Fmsy=0.26													Effort kWdays at sea									
				2005	2006	2007	2008	2009	2010	2011	2012	2013		2005	2006	2007	2008	2009	2010	2011	2012	2013	
F plan						0.757	0.681	0.613	0.552	0.497	0.447	0.402	Effort plan/ TAC regulations not applicable as days at sea per vessel										
reduction F plan							-0.10	-0.10	-0.10	-0.10	-0.10	-0.10	reduction										
F estimated				0.98	0.758	0.757	0.793	0.784	0.695	0.745	0.709	0.804	Effort estimated (re	10115581	8716570	8655803	7489576	6076753	5121182	5048804	5145003	4826692	
reduction F estimated							0.05	-0.01	-0.11	0.07	-0.05	0.13	reduction				-0.13	-0.19	-0.16	-0.01	0.02	-0.06	
Fpar													EFFORT										2005-20
Country	Gear	Specon	catch.cate	2005	2006	2007	2008	2009	2010	2011	2012	2013	kW days at sea	2005	2006	2007	2008	2009	2010	2011	2012	2013	r
DEN	R-DEM_SEINE	NONE	catches	0.03464	0.03991	0.03989	0.04759	0.02965	0.02398	0.01891	0.01671	0.03411		264002	253210	239604	181854	118417	91866	54972	89731	78870	0.714
DEN	R-GILL	NONE	catches	0.10940	0.07041	0.06137	0.07491	0.07192	0.06731	0.06790	0.05895	0.06723		1245235	993868	804366	872897	723711	610449	593694	597244	567492.18	0.815
DEN	R-LONGLINE	NONE	catches	0.02290	0.01454	0.01339	0.00568	0.00632	0.00729	0.01047	0.00793	0.00701		164621	202815	126714	32557	33817	42527	46243	56902	59143.5	0.833
DEN	R-OTTER	NONE	catches	0.29683	0.20961	0.21099	0.23067	0.27554	0.23320	0.27450	0.23070	0.27246		2879424	2035587	1812121	1669672	1415553	1145919	1077878	1182374	1070255.38	0.124
DEN	R-PEL_TRAWL	NONE	catches	0.00175	0.00321	0.00056	0.00031	0.00119	0.00181	0.00000	0.00002			14346	24308	6246	2831	2744	7621	561	322	161	0.924
DEN	R-TRAMMEL	NONE	catches	0.01863	0.01434	0.01308	0.01788	0.01437	0.01698	0.01813	0.02150	0.02830		368285	311401	309684	349896	317238	301565	271304	335772	318336	0.162
EST	R-GILL	NONE	catches	0.00218	0.00293	0.00141	0.00493	0.00925						40887	57436	19041	39051	41349					
EST	R-OTTER	NONE	catches	0.00005					0.00002		0.00013			4199					4248		2650		
EST	R-PEL_TRAWL	NONE	catches	0.00004		0.00027								662		1269							
GER	R-BEAM	NONE	catches				0.00035										3867						
GER	R-DEM_SEINE	NONE	catches	0.00127	0.00147	0.00390	0.00932	0.00887	0.00218	0.00312	0.00017			1912	23422	37741	38400	42327	9713	13789	1764		
GER	R-GILL	NONE	catches	0.04061	0.05002	0.04642	0.05715	0.04391	0.05141	0.03929	0.03914	0.04427		1135980	1449940	1457215	1247682	932027	893907	809150	771580	690023	0.498
GER	R-LONGLINE	NONE	catches	0.00228	0.00102	0.00063	0.00078	0.00063	0.00137	0.00121	0.00064	0.00109		122727	119348	100892	97335	122409	74286	62880	58865	62332	0.186
GER	R-OTTER	NONE	catches	0.20078	0.15206	0.14394	0.12682	0.13368	0.13231	0.15677	0.11966	0.12022		1686831	1481387	1491775	1207722	1028646	933844	964057	932751	758924	0.747
GER	R-PEL_TRAWL	NONE	catches	0.00143	0.00218	0.00511	0.00018		0.00055	0.00073	0.00021			17039	20699	30856	3443		3740	5756	1607		
GER	R-TRAMMEL	NONE	catches	0.00059	0.00085	0.00241	0.00358	0.00312	0.00193	0.00341	0.00396	0.00413		40549	67494	132416	128657	134669	77750	106349	104519	91729	0.688
LAT	R-GILL	NONE	catches	0.01458	0.01665	0.00245	0.00110	0.00109	0.00319	0.00107	0.00043	0.00643		171002	161456	30116	12676	3528	11604	6174	2940	43917	0.981
LAT	R-OTTER	NONE	catches	0.00196	0.00003	0.00511			0.00414					17632		18488			7920				
LIT	R-LONGLINE	NONE	catches	0.00027										12533	0								
LIT	R-OTTER	NONE	catches	0.00536	0.00135									57602	84342								
LIT	R-PEL_TRAWL	NONE	catches	0.00043										16799	0								
POL	R-GILL	NONE	catches	0.01644	0.01294	0.02480	0.02452	0.01465	0.00789	0.01006	0.01542	0.01840		331555	199045	325354	228173	135263	84558	81024	126904	128373.8	0.683
POL	R-LONGLINE	NONE	catches	0.00926	0.00368	0.00728	0.00291	0.00048	0.00054	0.00087	0.00108	0.00095		143615	46306	53736	21615	6391	4502	6118	7932	8677.4	0.929
POL	R-OTTER	NONE	catches	0.01059	0.00551	0.03446	0.02423	0.01182	0.00589	0.01232	0.01564	0.02028		310416	185144	618979	315079	172795	114560	101350	146051	195741.7	0.807
POL	R-PEL_TRAWL	NONE	catches	0.00091	0.00005	0.00008								16612	1258	2612			160				
SWE	R-GILL	NONE	catches	0.04236	0.03136	0.03258	0.04876	0.04615	0.03647	0.04023	0.03366	0.03381		661911	569385	546464	625243	517212	442913	439498	388585	404206.06	0.463
SWE	R-LONGLINE	NONE	catches	0.00731	0.00286	0.00149	0.00214	0.00716	0.00453	0.00743	0.00878	0.01305		112396	40756	19061	14536	43369	39643	60377	80848	65712.81	0.662
SWE	R-OTTER	NONE	catches	0.02175	0.03662	0.04525	0.04864	0.04432	0.02303	0.08784	0.05078	0.03782		215686	338505	425893	345335	190277	155830	306992	211245	227946.92	0.368
SWE	R-PEL_TRAWL	NONE	catches	0.00016	0.00022		0.00007			0.00034				2424	4198		720			1930	390		
SWE	R-TRAMMEL	NONE	catches	0.00250	0.00229	0.00098	0.00174	0.00219	0.00384	0.00332	0.00214	0.00349		58699	45260	45160	50335	95011	62057	38708	44027	54850.04	0.066
Sum				0.86726	0.67611	0.69785	0.73426	0.72631	0.62986	0.75792	0.62765	0.71305		10115581	8716570	8655803	7489576	6076753	5121182	5048804	5145003	4826691.79	0.536
check sum Fpar/F				0.88	0.89	0.92	0.93	0.93	0.91	1.02	0.89	0.89											

Table 5.1.11.1.2 Western Baltic cod in area A. The upper left part of the table lists F trajectories from the cod management plan as well as estimated F values from the ICES 2014 assessment. The lower left part lists the estimated partial F based on landings from the regulated fisheries. The right part of the table lists the respective trends in fishing effort (kW days at sea). A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

2008 moving reference year annual F reductions by 10 percent until F<=0.6, Fmsy=0.26												
				2005	2006	2007	2008	2009	2010	2011	2012	2013
F plan						0.757	0.681	0.613	0.552	0.497	0.447	0.402
reduction F plan							-0.10	-0.10	-0.10	-0.10	-0.10	-0.10
F estimated				0.98	0.758	0.757	0.793	0.784	0.695	0.745	0.709	0.804
reduction F estimated							0.05	-0.01	-0.11	0.07	-0.05	0.13
Fpar												
Country	Gear	Specon	catch.cate	2005	2006	2007	2008	2009	2010	2011	2012	2013
DEN	R-DEM_SEINE	NONE	landings	0.03464	0.03991	0.03989	0.04721	0.02747	0.02038	0.01707	0.01638	0.02529
DEN	R-GILL	NONE	landings	0.10424	0.07038	0.06134	0.07480	0.06827	0.06165	0.06790	0.05802	0.06564
DEN	R-LONGLINE	NONE	landings	0.02180	0.01454	0.01299	0.00568	0.00628	0.00729	0.01033	0.00782	0.00666
DEN	R-OTTER	NONE	landings	0.23456	0.19144	0.19586	0.21258	0.25257	0.19240	0.24404	0.21975	0.20789
DEN	R-PEL_TRAWL	NONE	landings	0.00139	0.00293	0.00052	0.00029	0.00109	0.00154	0.00000	0.00002	
DEN	R-TRAMMEL	NONE	landings	0.01657	0.01434	0.01308	0.01787	0.01372	0.01546	0.01813	0.02103	0.02779
EST	R-GILL	NONE	landings	0.00205	0.00293	0.00141	0.00492	0.00888				
EST	R-OTTER	NONE	landings	0.00005					0.00002		0.00012	
EST	R-PEL_TRAWL	NONE	landings	0.00004		0.00027						
GER	R-BEAM	NONE	landings				0.00035					
GER	R-DEM_SEINE	NONE	landings	0.00127	0.00147	0.00390	0.00932	0.00887	0.00218	0.00312	0.00017	
GER	R-GILL	NONE	landings	0.03896	0.05001	0.04641	0.05712	0.03990	0.04971	0.03800	0.03854	0.04312
GER	R-LONGLINE	NONE	landings	0.00216	0.00102	0.00062	0.00078	0.00062	0.00137	0.00119	0.00063	0.00077
GER	R-OTTER	NONE	landings	0.15953	0.14244	0.13521	0.11817	0.11997	0.10828	0.13860	0.11328	0.09995
GER	R-PEL_TRAWL	NONE	landings	0.00121	0.00217	0.00511	0.00018		0.00055	0.00056	0.00021	
GER	R-TRAMMEL	NONE	landings	0.00054	0.00085	0.00241	0.00358	0.00277	0.00179	0.00341	0.00386	0.00397
LAT	R-GILL	NONE	landings	0.01386	0.01663	0.00245	0.00110	0.00104	0.00302	0.00104	0.00043	0.00633
LAT	R-OTTER	NONE	landings	0.00196	0.00002	0.00472			0.00367			
LIT	R-LONGLINE	NONE	landings	0.00026								
LIT	R-OTTER	NONE	landings	0.00440	0.00122							
LIT	R-PEL_TRAWL	NONE	landings	0.00035								
POL	R-GILL	NONE	landings	0.01578	0.01294	0.02479	0.02452	0.01286	0.00753	0.00989	0.01509	0.01781
POL	R-LONGLINE	NONE	landings	0.00880	0.00368	0.00724	0.00291	0.00048	0.00054	0.00086	0.00107	0.00089
POL	R-OTTER	NONE	landings	0.01057	0.00507	0.03228	0.02276	0.01086	0.00537	0.01014	0.01444	0.01635
POL	R-PEL_TRAWL	NONE	landings	0.00091	0.00004	0.00008						
SWE	R-GILL	NONE	landings	0.04073	0.03135	0.03256	0.04867	0.04430	0.03572	0.03957	0.03322	0.03303
SWE	R-LONGLINE	NONE	landings	0.00706	0.00286	0.00148	0.00214	0.00715	0.00453	0.00733	0.00864	0.01264
SWE	R-OTTER	NONE	landings	0.02167	0.03489	0.04165	0.04675	0.04015	0.02088	0.06116	0.04328	0.03410
SWE	R-PEL_TRAWL	NONE	landings	0.00016	0.00021		0.00007			0.00025		
SWE	R-TRAMMEL	NONE	landings	0.00234	0.00229	0.00098	0.00174	0.00215	0.00380	0.00325	0.00211	0.00345
Sum				0.74786	0.64563	0.66725	0.70351	0.66940	0.54768	0.67584	0.59811	0.60568
check sum Fpar/F				0.76	0.85	0.88	0.89	0.85	0.79	0.91	0.84	0.75

Effort kWdays at sea										
	2005	2006	2007	2008	2009	2010	2011	2012	2013	
Effort plan/ TAC regulations not applicable as days at sea per vessel										
reduction										
Effort estimated (re	10115581	8716570	8655803	7489576	6076753	5121182	5048804	5145003	4826692	
reduction				-0.13	-0.19	-0.16	-0.01	0.02	-0.06	
EFFORT										2005-20
kW days at sea	2005	2006	2007	2008	2009	2010	2011	2012	2013	r
	264002	253210	239604	181854	118417	91866	54972	89731	78870	0.818
	1245235	993868	804366	872897	723711	610449	593694	597244	567492.18	0.848
	164621	202815	126714	32557	33817	42527	46243	56902	59143.5	0.846
	2879424	2035587	1812121	1669672	1415553	1145919	1077878	1182374	1070255.38	0.006
	14346	24308	6246	2831	2744	7621	561	322	161	0.921
	368285	311401	309684	349896	317238	301565	271304	335772	318336	0.092
	40887	57436	19041	39051	41349					
	4199					4248		2650		
	662		1269							
				3867						
	1912	23422	37741	38400	42327	9713	13789	1764		
	1135980	1449940	1457215	1247682	932027	893907	809150	771580	690023	0.549
	122727	119348	100892	97335	122409	74286	62880	58865	62332	0.249
	1686831	1481387	1491775	1207722	1028646	933844	964057	932751	758924	0.852
	17039	20699	30856	3443		3740	5756	1607		
	40549	67494	132416	128657	134669	77750	106349	104519	91729	0.682
	171002	161456	30116	12676	3528	11604	6174	2940	43917	0.978
	17632		18488			7920				
	12533	0								
	57602	84342								
	16799	0								
	331555	199045	325354	228173	135263	84558	81024	126904	128373.8	0.686
	143615	46306	53736	21615	6391	4502	6118	7932	8677.4	0.918
	310416	185144	618979	315079	172795	114560	101350	146051	195741.7	0.848
	16612	1258	2612			160				
	661911	569385	546464	625243	517212	442913	439498	388585	404206.06	0.477
	112396	40756	19061	14536	43369	39643	60377	80848	65712.81	0.657
	215686	338505	425893	345335	190277	155830	306992	211245	227946.92	0.495
	2424	4198		720			1930	390		0.604
	58699	45260	45160	50335	95011	62057	38708	44027	54850.04	0.058
	10115581	8716570	8655803	7489576	6076753	5121182	5048804	5145003	4826691.79	0.702

Table 5.1.11.1.3 Western Baltic cod in area A. The upper left part of the table lists F trajectories from the cod management plan as well as estimated F values from the ICES 2014 assessment. The lower left part lists the estimated partial F based on discards from the regulated fisheries. The right part of the table lists the respective trends in fishing effort (kW days at sea). A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort -regulated gears to the overall F estimate of the stock.

2008 moving reference year annual F reductions by 10 percent until F<=0.6, Fmsy=0.26														Effort kWdays at sea												
				2005	2006	2007	2008	2009	2010	2011	2012	2013			2005	2006	2007	2008	2009	2010	2011	2012	2013				
F plan						0.757	0.681	0.613	0.552	0.497	0.447	0.402		Effort plan/ TAC regulations not applicable as days at sea per vessel												
reduction F plan							-0.10	-0.10	-0.10	-0.10	-0.10	-0.10		reduction												
F estimated				0.98	0.758	0.757	0.793	0.784	0.695	0.745	0.709	0.804		Effort estimated (re	10115581	8716570	8655803	7489576	6076753	5121182	5048804	5145003	4826692				
reduction F estimated							0.05	-0.01	-0.11	0.07	-0.05	0.13		reduction				-0.13	-0.19	-0.16	-0.01	0.02	-0.06				
Fpar														EFFORT										2005-2013			
Country	Gear	Specon	catch.cate	2005	2006	2007	2008	2009	2010	2011	2012	2013		kW days at sea	2005	2006	2007	2008	2009	2010	2011	2012	2013	r	p	n	
DEN	R-DEM_SEINE	NONE	discards	0.00000	0.00000	0.00000	0.00038	0.00219	0.00361	0.00184	0.00033	0.00882			264002	253210	239604	181854	118417	91866	54972	89731	78870	-0.593	0.092	9	-1.948
DEN	R-GILL	NONE	discards	0.00516	0.00003	0.00002	0.00011	0.00364	0.00566	0.00000	0.00093	0.00159			1245235	993868	804366	872897	723711	610449	593694	597244	567492.18	0.182	0.639	9	0.490
DEN	R-LONGLINE	NONE	discards	0.00111	0.00000	0.00040	0.00000	0.00005	0.00000	0.00014	0.00011	0.00035			164621	202815	126714	32557	33817	42527	46243	56902	59143.5	0.467	0.205	9	1.397
DEN	R-OTTER	NONE	discards	0.06228	0.01818	0.01514	0.01809	0.02297	0.04080	0.03046	0.01095	0.06457			2879424	2035587	1812121	1669672	1415553	1145919	1077878	1182374	1070255.38	0.189	0.626	9	0.509
DEN	R-PEL_TRAWL	NONE	discards	0.00036	0.00028	0.00004	0.00002	0.00010	0.00027	0.00000	0.00000				14346	24308	6246	2831	2744	7621	561	322	161	0.797	0.010	9	3.491
DEN	R-TRAMMEL	NONE	discards	0.00206	0.00000	0.00000	0.00001	0.00065	0.00152	0.00000	0.00047	0.00050			368285	311401	309684	349896	317238	301565	271304	335772	318336	0.443	0.233	9	1.307
EST	R-GILL	NONE	discards	0.00013	0.00001	0.00000	0.00001	0.00037							40887	57436	19041	39051	41349								
EST	R-OTTER	NONE	discards	0.00000					0.00000		0.00001				4199					4248		2650					
EST	R-PEL_TRAWL	NONE	discards	0.00000		0.00000									662		1269										
GER	R-BEAM	NONE	discards				0.00000											3867									
GER	R-DEM_SEINE	NONE	discards	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000				1912	23422	37741	38400	42327	9713	13789	1764					
GER	R-GILL	NONE	discards	0.00165	0.00001	0.00001	0.00003	0.00401	0.00169	0.00129	0.00059	0.00115			1135980	1449940	1457215	1247682	932027	893907	809150	771580	690023	-0.473	0.199	9	-1.420
GER	R-LONGLINE	NONE	discards	0.00013	0.00000	0.00001	0.00000	0.00001	0.00000	0.00002	0.00001	0.00031			122727	119348	100892	97335	122409	74286	62880	58865	62332	-0.237	0.539	9	-0.645
GER	R-OTTER	NONE	discards	0.04125	0.00961	0.00872	0.00865	0.01372	0.02403	0.01817	0.00638	0.02027			1686831	1481387	1491775	1207722	1028646	933844	964057	932751	758924	0.249	0.518	9	0.680
GER	R-PEL_TRAWL	NONE	discards	0.00022	0.00001	0.00000	0.00000		0.00000	0.00017	0.00000				17039	20699	30856	3443		3740	5756	1607					
GER	R-TRAMMEL	NONE	discards	0.00005	0.00000	0.00000	0.00000	0.00034	0.00015	0.00001	0.00009	0.00016			40549	67494	132416	128657	134669	77750	106349	104519	91729	0.207	0.593	9	0.560
LAT	R-GILL	NONE	discards	0.00072	0.00002	0.00000	0.00000	0.00005	0.00017	0.00003	0.00000	0.00010			171002	161456	30116	12676	3528	11604	6174	2940	43917	0.633	0.067	9	2.163
LAT	R-OTTER	NONE	discards	0.00001	0.00000	0.00039			0.00047						17632		18488			7920							
LIT	R-LONGLINE	NONE	discards	0.00001											12533	0											
LIT	R-OTTER	NONE	discards	0.00096	0.00013										57602	84342											
LIT	R-PEL_TRAWL	NONE	discards	0.00008											16799	0											
POL	R-GILL	NONE	discards	0.00066	0.00001	0.00001	0.00000	0.00179	0.00036	0.00016	0.00033	0.00060			331555	199045	325354	228173	135263	84558	81024	126904	128373.8	-0.199	0.608	9	-0.537
POL	R-LONGLINE	NONE	discards	0.00047	0.00000	0.00004	0.00000	0.00001	0.00000	0.00002	0.00001	0.00006			143615	46306	53736	21615	6391	4502	6118	7932	8677.4	0.909	0.001	9	5.770
POL	R-OTTER	NONE	discards	0.00002	0.00044	0.00217	0.00147	0.00096	0.00052	0.00218	0.00120	0.00393			310416	185144	618979	315079	172795	114560	101350	146051	195741.7	0.124	0.750	9	0.331
POL	R-PEL_TRAWL	NONE	discards	0.00000	0.00000	0.00000									16612	1258	2612			160							
SWE	R-GILL	NONE	discards	0.00163	0.00001	0.00002	0.00010	0.00186	0.00075	0.00066	0.00044	0.00079			661911	569385	546464	625243	517212	442913	439498	388585	404206.06	0.069	0.860	9	0.183
SWE	R-LONGLINE	NONE	discards	0.00025	0.00000	0.00000	0.00000	0.00001	0.00000	0.00010	0.00014	0.00040			112396	40756	19061	14536	43369	39643	60377	80848	65712.81	0.699	0.036	9	2.586
SWE	R-OTTER	NONE	discards	0.00008	0.00173	0.00360	0.00189	0.00416	0.00215	0.02668	0.00750	0.00373			215686	338505	425893	345335	190277	155830	306992	211245	227946.92	0.121	0.756	9	0.323
SWE	R-PEL_TRAWL	NONE	discards	0.00000	0.00000		0.00000			0.00009					2424	4198		720			1930	390					
SWE	R-TRAMMEL	NONE	discards	0.00016	0.00000	0.00000	0.00000	0.00004	0.00004	0.00007	0.00003	0.00005			58699	45260	45160	50335	95011	62057	38708	44027	54850.04	0.153	0.694	9	0.410
Sum				0.11945	0.03047	0.03057	0.03076	0.05693	0.08219	0.08209	0.02952	0.10738			10115581	8716570	8655803	7489576	6076753	5121182	5048804	5145003	4826691.79	-0.090	0.818	9	-0.239
check sum Fpar/F				0.12	0.04	0.04	0.04	0.07	0.12	0.11	0.04	0.13															

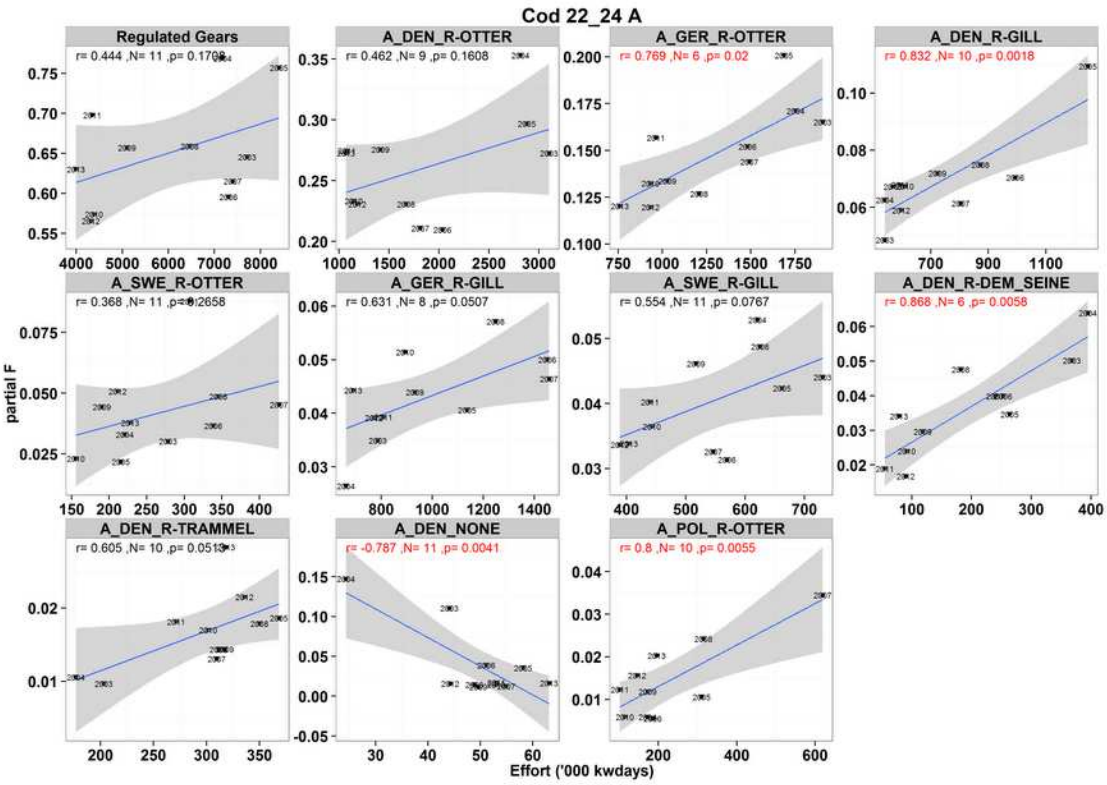


Fig. 5.1.11.1.1 Western Baltic cod in area A. Effort estimates versus partial fishing mortality by Member state and regulated gears in 2003-1013.

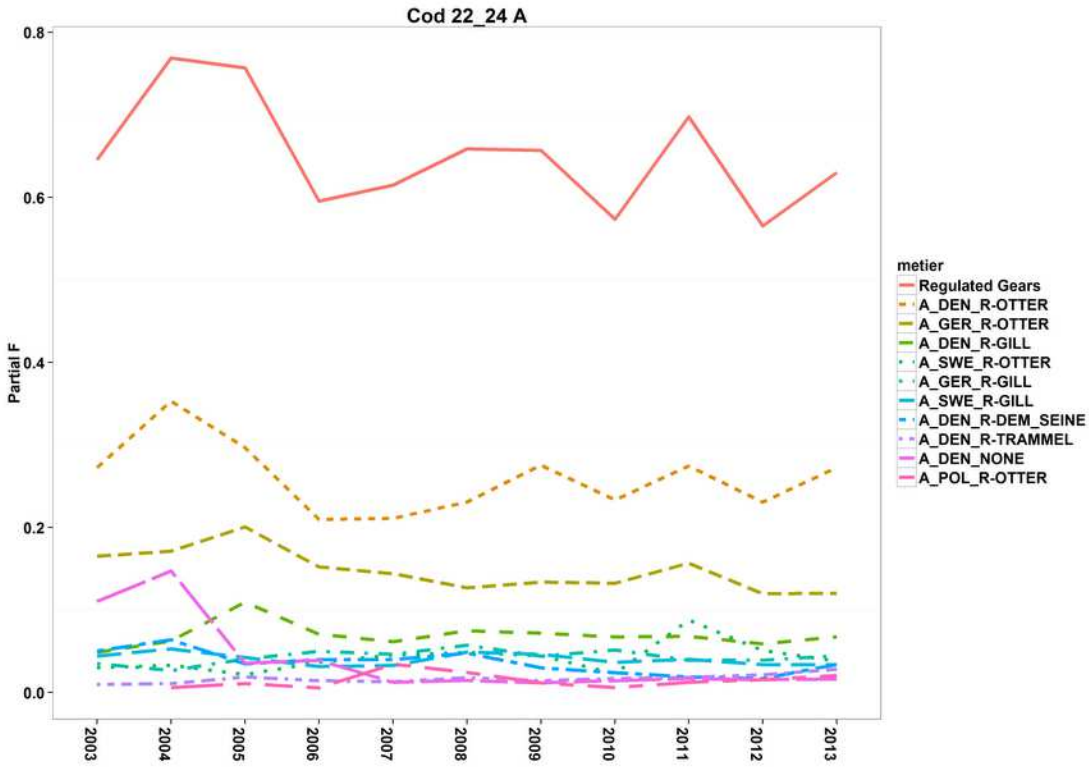


Fig. 5.1.11.1.2 Western Baltic cod in area A. Partial F landings of major fisheries, 2003-2013

5.1.11.2 Eastern Baltic cod in area B

Since ICES did not accept the analytical assessment of the Eastern Baltic cod in 2014, the STECF EWG 14-13 was not in the position to evaluate the partial fishing mortalities for this cod stock.

5.1.12 ToR 8 Spatio-temporal pattern in standardized catchability indices for cod

5.1.12.1 Introduction

Catchability (q) is defined as the relationship between the catch rate (CPUE) and the true population size. Consequently, the unit of catchability is fish caught per fish available per effort unit and per time unit, or, in easier words, catchability can conceptually be considered as the probability of any single fish being caught (Jul-Larsen *et al*., 2003).

Many factors are related to catchability, e.g. fish abundance at a certain time in a certain area and gear efficiency (fishing power) including use of the gear and fishers' experience (Marchal *et al*., 2001). A standard solution to evaluate changes in catchability is therefore to compare catch rates from commercial and research fishing where the catchability of the research fishing remains constant from year to year (Neis *et al*., 1999):

CPUE (fishery)/CPUE (survey) = q (fishery)/q (survey)

This catchability index has no units. STECF EWG 13-13 interprets the resulting ratio as an index of fishing mortality per individual fish independent of stock size, which allows spatio-temporal analyses. The calculation of catchability indices for cod per ICES statistical square (rectangle) and year from standardized and averaged ratios between CPUE by fishery /BITS Q1-Q4 indices are therefore believed to provide indications of spatio-temporal patterns.

5.1.12.2 Data

STECF EWG14-13 performed the analyses using DCF data from the 2014 DCF data call to support fishing effort regime evaluations and Baltic International Trawl Survey (BITS) data from 2006-2013. The database of scientific survey data used by the EWG can be found at the ICES DATRAS web page: http://datras.ices.dk/Data_products/Download/Download_Data_public.aspx

BITS Q1 and Q4 data were downloaded from the ICES DATRAS server, i.e. station data and catch data for the years 2003-2013. Only hauls assigned valid and with haul duration equal or longer the 20 min. were considered. Stations with cod catches were selected using the species codes 164712 (TSN from the Integrated Taxonomic Information System ITIS) and 126436 (WoRMS, Word Register of Marine Species), as appropriate. The two data sets were linked and CatCatchWg (grams) was standardized to kg/hour.

Annual average Q1-Q4 abundance indices (kg/hours) per rectangle were calculated for cod and averaged over the period 2008-2012.

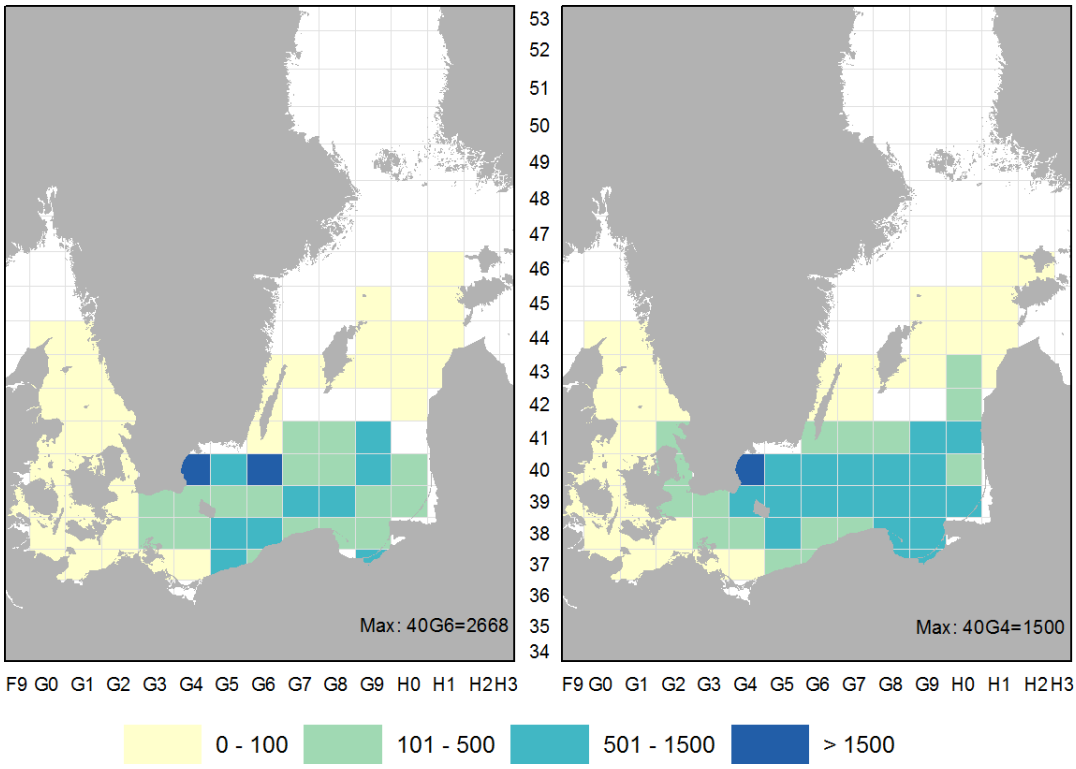


Fig. 5.1.12.1. Average annual Baltic Sea BITS Q1-4 CPUE indices (kg/hours) per rectangle for cod in 2013 (left panel) and averaged over 2008-2012 (right panel).

In 2013, cod appears widely distributed over the central and southern Baltic Sea into the Belts (Fig. 5.1.12.1.). Cod becomes less abundant around the central Baltic, in particular in the northern rectangles. These patterns are consistent between 2013 and as average over the years 2006-2013.

DCF data on annual landings per rectangle (Table E, landings in tons) were summed for all effort regulated gear groups by rectangle and year, excluding the recorded landings of small vessels (<8m). The landings per rectangle and fishery (métier) were raised to catches based on discard rates estimated by year, management area, gear, mesh size, special condition (derogation, where applicable for effort regulated gears), and nation. The additional consideration of the nation (additional to the defined management areas of the DCF) during the process of catch estimation by rectangle (landings plus raised estimates of discards by rectangles) is assumed to improve the calculation of specific geographical fisheries effects. The estimated cod catches per rectangle are shown in Fig. 5.1.12.2. Average geographical distribution of estimated catches resembles the stock distribution as perceived from the BITS Q1-Q4 survey indices (Figures 5.1.12.1. and 5.1.12.2). Highest catches are seen in the central and southern Baltic Sea, while there seems almost no cod fishing in the northern Baltic Sea. These patterns appear quite steady, as the geographical patterns in the estimates of cod catches averaged over 2008-2012 is very similar to the situation in 2013 (Fig. 5.1.12.2).

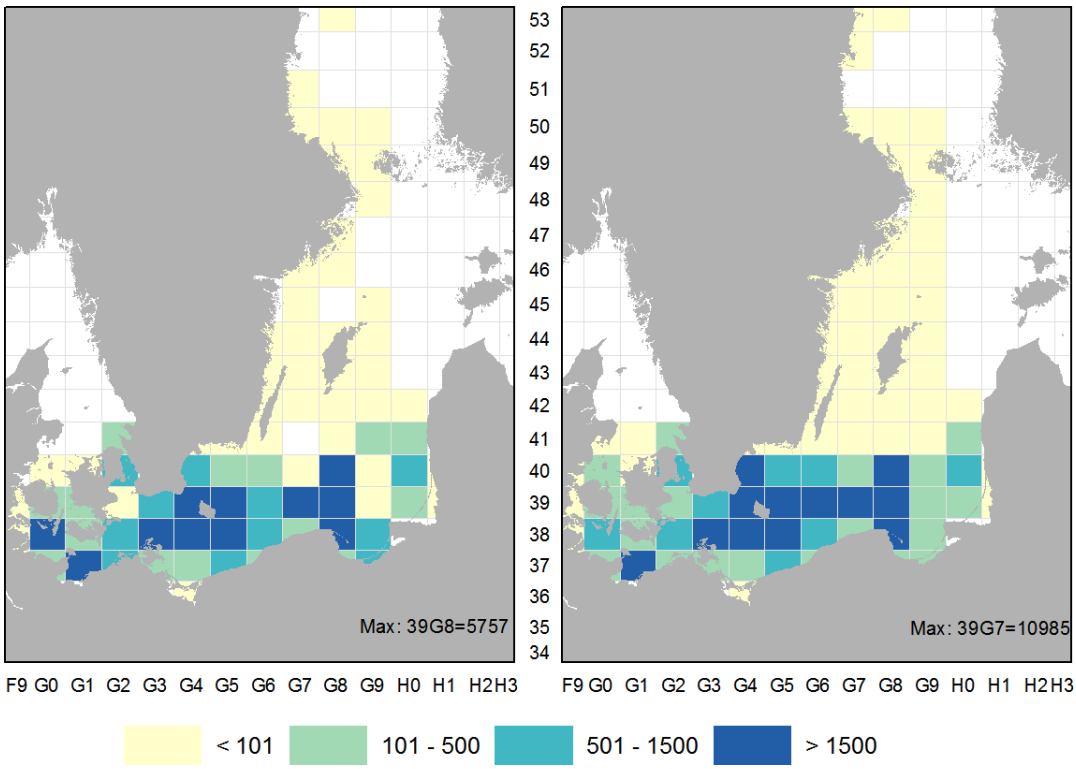


Fig. 5.1.12.2. Annual cod catches (t) of effort regulated gear groups per rectangle in 2013 (left panel) and averaged for the period 2008-2012 (right panel).

Fisheries specific DCF data on annual fishing effort per rectangle (Table C, fished hours per rectangle) were summed across all effort regulated gear groups and years, excluding the under 8m boats. The resulting annual fishing effort estimates per rectangle and year were averaged for the period 2008-2012 and the geographical distribution patterns are shown in Fig. 5.1.12.3. Again, the effort patterns reveal a picture where most of it is concentrated in the central and southern Baltic Sea, while northern areas show significantly lower effort figures.

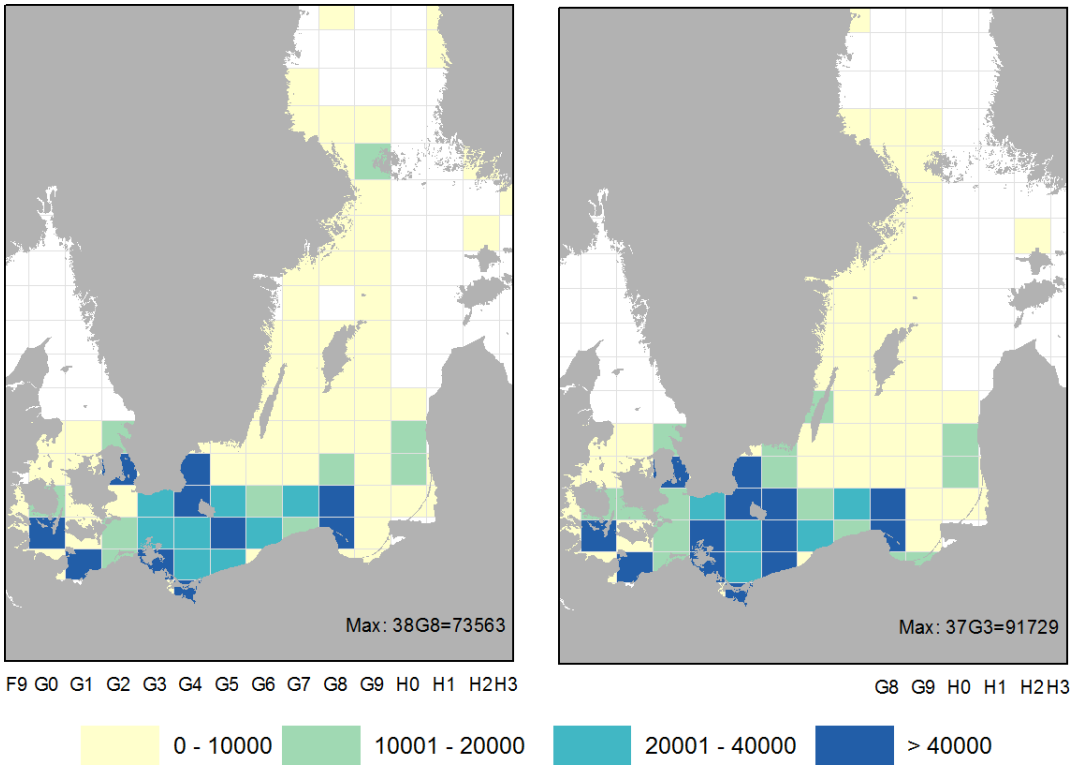


Fig. 5.1.12.3. Annual fishing effort (hours fished) of effort regulated gear groups per rectangle in 2013 (left panel) and averaged for the period 2008-2012 (right panel).

The annual effective effort data of effort regulated gears by rectangle (Table C, in units of hours fished) and estimated annual cod catches of effort regulated gears per rectangle data (Table E, in units of tons) were linked and for each fishery the annual CPUE (kg/hours) was calculated.

Annual catchability coefficients by fishery and rectangle are determined from the log-transformed CPUE per fishery divided by the log-transformed BITS survey indices for cod. Log-transformation was done as $f(x) = \ln(x+1)$ to decrease the variation and to avoid negative values. Such standardised catchability indices were then averaged over each of the rectangles and over the period 2008-2012 and compared with the 2013 estimates.

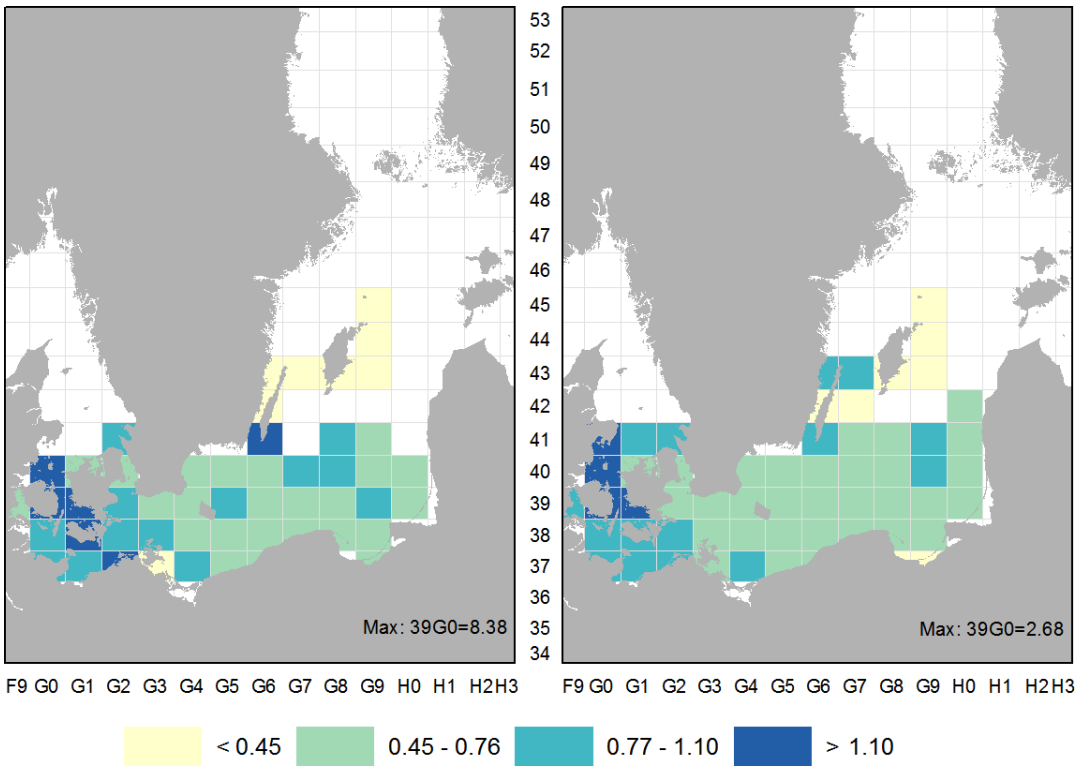


Fig. 5.1.12.4. Average cod catchability (ln(CPUE)/(ln(BITS Q1 index)) of all regulated gear groups per rectangle in 2013 (left panel) and averaged for the period 2008-2012 (right panel).

5.1.12.3 Spatial pattern of cod catchability

The resulting geographical patterns in cod catchability values are shown in Fig. 5.1.12.4. The catchability is estimated to be higher in the area of the Western Baltic cod stock compared to the Eastern Baltic stock. Catchability in the Eastern Baltic cod stock area is fairly homogeneous in that part where most fishing effort occurs, especially for data averaged over 2008-2012. From Figure 5.1.12.1 CPUE of cod from the BITS survey is lower than in the southern part of the Eastern Baltic. Houghton and Flatman (1981) have demonstrated an inverse correlation between catchability and abundance for North Sea cod.

5.2 Kattegat effort regime evaluation in the context of Annex IIA to Council Regulation (EC) No 57/2011)

5.2.1 ToR 1.a Fishing effort in kWdays, GTdays, kW and number of vessels by Member State and fisheries

Trends in effort by the new cod plan gear groups and by country are shown in Table (5.2.1.1). In 2013 70% of the total effort was deployed by gears that are under effort regulation in the cod plan, dominated by the TR2 fishery, and the total effort in Kattegat has decreased by 46% between 2003 and 2013. The effort deployed by regulated gears has decreased steadily from 2003 (by 57% between 2003 and 2013) with the exception of 2012, when the effort increased by 11% (266 406 kW*days) from the previous year. This was mainly due to an increase by 233 353 kW*days in the Danish TR2 fishery (an increase by 12% for that fishery), which is under the derogation CPart13c from 2010 onwards. Between 2012 and 2013 the effort by the Danish TR2 fishery decreased again by 90 726 kW*days and the total nominal effort by regulated gears decreased by 7%.

The Swedish regulated TR2 effort has decreased by 82% since 2003, partly due to a move towards the unregulated CPart11 (using a 35mm Nephrops sorting grid, introduced in 2003) which constituted 71% of the Swedish TR2 effort in 2013, and partly to an overall decrease in TR2 effort (38% since 2003). The effort carried out by unregulated gears, including the Swedish Nephrops sorting grid under the derogation CPart11, has increased from 776 555 kW*days in 2003 to 1 113 664 kW*days in 2013, an increase by 43% (Table 5.2.1.3).

Table 5.2.1.1 Kattegat: Trend in nominal effort (kW*days at sea) by regulated gear group and country. 2004-2013. The gear category TR2 does not include effort carried out under the derogation CPart11 (from 2009 onwards) or IIA83b (2004-2008).

Annex	Area	Reg. Gear	Country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Rel. 2004-2006	Rel. 2012
IIa	3a	GN1	DEN	111648	129061	103851	72616	65829	80031	64536	46211	19778	27565	0.24	1.39
IIa	3a	GN1	GER	14289	26827	38486	39725	31562	23156	19526	21484	11860	8164	0.31	0.69
IIa	3a	GN1	SWE	17690	9609	14748	14949	32697	33120	32270	27481	35082	22312	1.59	0.64
IIa	3a	GT1	DEN	14791	28220	24754	11927	11758	22410	13398	11408	5279	5889	0.26	1.12
IIa	3a	GT1	SWE	11254	12833	19178	34170	29266	17518	26612	25205	14941	27610	1.91	1.85
IIa	3a	LL1	DEN	3080		220					221	397	221	0.13	0.56
IIa	3a	LL1	SWE	1376	10684	27478	37856	25234						0.00	
IIa	3a	TR1	DEN	191743	203625	191632	184599	156198	100777	67525	48671	100989	79227	0.40	0.78
IIa	3a	TR1	GER	2390	4985	5262	5526	1964				4309	1105	0.26	0.26
IIa	3a	TR1	SWE	15121	24870	5160	19799	57592	6985	13626	1006		1682.95	0.11	
IIa	3a	TR2	DEN	3062610	2546820	2250888	2026560	2148333	2208298	2378545	2000136	2233489	2142763	0.82	0.96
IIa	3a	TR2	GER	31861	7505	10318	35338	38716	19918	30730	13670	2645	2646	0.16	1.00
IIa	3a	TR2	SWE	1033710	932268	1062871	1041966	920320	436355	284594	271686	260287	247313	0.24	0.95
IIa	3a	TR3	DEN	483712	485616	359693	301698	146119	75792	27110	25572	70101	10382	0.02	0.15
IIa	3a	TR3	SWE				1470		1148						
Total				4995275	4422923	4114539	3828199	3665588	3025508	2958472	2492751	2759157	2576880	0.57	0.93

Table 5.2.1.2 Kattegat: Trend in nominal effort (kW*days at sea) by regulated gear group and derogation 2004-2013. All the Danish TR2 effort is under the derogation CPart13c from 2010 onwards while the German TR2 effort is partly under the derogation CPart13B between 2010 and 2011.

Annex	Area	Reg. Gear	SPECON	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Rel. 2004-2006	Rel. 2012
IIa	3a	GN1	none	143627	165497	157085	127290	130088	136307	116332	95176	66720	58041	0.37	0.87
IIa	3a	GT1	none	26045	41053	43932	46097	41024	39928	40010	36613	20220	33499	0.91	1.66
IIa	3a	LL1	none	4456	10684	27698	37856	25234			221	397	221	0.02	0.56
IIa	3a	TR1	none	209254	233480	202054	209924	215754	107762	81151	49677	105298	82014.45	0.38	0.78
IIa	3a	TR2	CPART13B							20020	4180				
IIa	3a	TR2	CPART13C							2378545	2000136	2233489	2142763		0.96
IIa	3a	TR2	none	4128181	3486593	3324077	3103864	3107369	2664571	295304	281176	262932	249959	0.07	0.95
IIa	3a	TR3	none	483712	485616	359693	303168	146119	76940	27110	25572	70101	10382	0.02	0.15
Total				4995275	4422923	4114539	3828199	3665588	3025508	2958472	2492751	2759157	2576880	0.57	0.93

Table 5.2.1.3 Trend in nominal effort (kW*days at sea) of unregulated gears in Kattegat 2004-2013. Sweden is the only country using the derogation CPart11/IIIA83B.

Annex	Area	Gear	SPECON	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Rel. 2004-2006	Rel. 2012
IIa	3a	BEAM	none	118											
IIa	3a	DEM_SEINE	none		354										
IIa	3a	DREDGE	none	426	26658	39802	50977	55259	35442	36517	51741	67491	48885	2.19	0.72
IIa	3a	none	none	3318	2579	2806	2712	188	19260	16306	15267	34391	8216	2.83	0.24
IIa	3a	OTTER	none	206117	189146	258514	198403	151091	229931	72299	30432	60366	119771	0.55	1.98
IIa	3a	PEL_SEINE	none	20680	25640	52976	32560	16157	11000	19876	19160	2760	21520	0.65	7.80
IIa	3a	PEL_TRAWL	none	392938	450906	374702	358100	195358	340860	277918	336209	400608	271422	0.67	0.68
IIa	3a	POTS	none	85806	65321	75311	86516	75233	64289	29897	32929	46114	45562.6	0.60	0.99
IIa	3a	TR2	CPart11						415194	482432	426638	546416	598286		1.09
IIa	3a	TR2	IIA83B	9912	113989	165425	233076	307336							
Total				719315	874593	969536	962344	800622	1115976	935245	912376	1158146	1113664	1.30	0.96

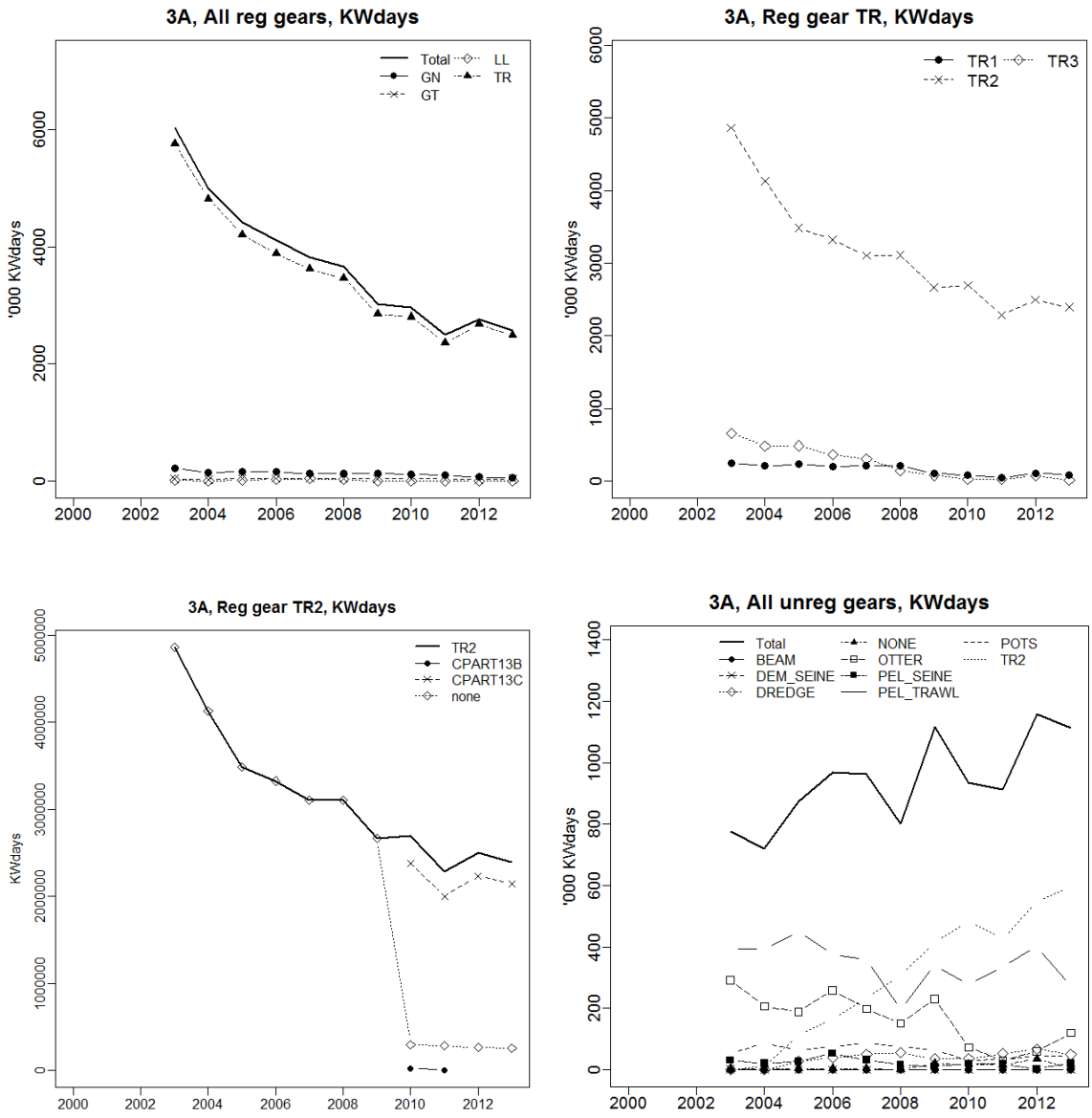


Figure 5.2.1.1. Kattegat: Top left: Trend in nominal effort (Kw *days at sea) by regulated gear types, 2003-2013. TR=Demersal trawl, BT=Beam trawl, GN=Gillnet, GT=Trammel net, LL=Longline. Note that the derogations CPart11 and IIA83b are not included in the TR gear category since they are considered unregulated. Top right: effort by gear types within gear group TR; TR1=mesh size ≥100mm; TR2=mesh size ≥70, ≤100mm; TR3 ≥16, ≤32 mm. The derogations CPart11 and IIA83b are not included in the TR2 category. Bottom left: Effort by derogation within gear type TR2. Note that the derogations CPart11 and IIA83b are not included in the TR2 category. Bottom right: effort by unregulated gear categories. The TR2 effort here is the effort carried out under the derogations IIA83B (2003-2008) and CPart11 (2009-2013).

The effort deployed in Gross tonnage days (GTdays), number of vessels and fishing capacity in kW by metier are not described in this report but can be found on the STECF EWG 14-13 website at: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1413:

Relative changes in data since last submissions:

No updates of effort data for previous years were submitted.

5.2.1.1 Uptake of effort baseline

The uptake of effort baselines is presented in Figure 5.2.1.1.1. Care must be taken in the interpretation of this figure, for a number of reasons, including e.g.: i) the baseline displayed here is extracted from the TAC and quotas regulations nr 43/2009, 53/2010, 57/2011, 44/2012, 40/2013 and 43/2014, and do not take into account the effort buyback performed by Member states as part of Article 13 and/or other agreements. This information is sometimes publicly available for some Member States, but not for all and STECF EWG 14-06 has not been provided with this information specifically; ii) as described in section 4, the effort information provided to STECF EWG 14-06 by a number of Member States is calculated in calendar days, whereas the actual regulation of effort uptake is based on 24h periods, which can lead to some differences especially in coastal fisheries; iii) STECF data are calculated by calendar year whereas the effort baselines apply from February to January.

All regulated gear categories in Kattegat are well below the effort base line apart from the TR2 fishery, which is the predominant fishery in the area. The TR2 overshoot is probably due to a combination of the points mentioned above and particularly the fact that the Danish TR2 fishery, which constituted 90% of the total TR2 nominal effort in 2013, is entirely under the derogation CPart13C which allows effort to be bought back by the Member State.

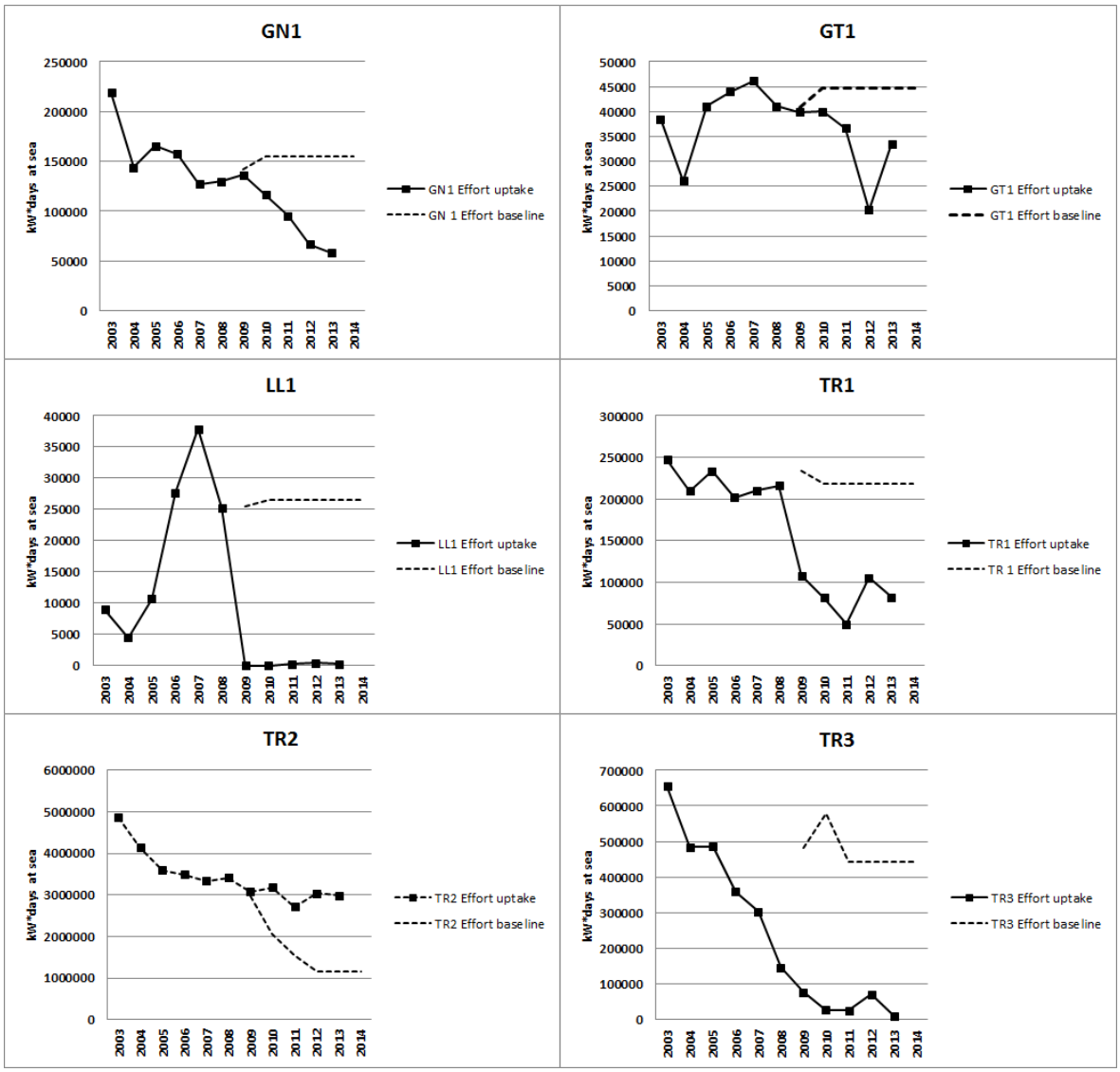


Figure 5.2.1.1.1 Management area 3a, Kattegat. Uptake of effort 2003-2013 by regulated gear category. Solid line=deployed effort in kW*days at sea, dashed line=Effort base line from the TAC and quota regulation for the years 2009-2014. Note that the derogations CPart11 and IIA83b are not included in the TR2 gear category since they are considered unregulated.

5.2.2 ToR 1.b and c Catches (landings and discards) of cod and non-cod species in weight and numbers at age by fisheries

STECF EWG 14-13 presents the requested cod and non-cod species in weight by fisheries. Age specific data and more comprehensive tables are available on the internet page of the STECF EWG 14-13: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1413

The total landings of cod in Kattegat, all gears included, have decreased substantially from 2036 tonnes in 2003 to 92 tonnes in 2013, of which 81t were taken by regulated gears and 69% were taken by the regulated TR2 gear category. The cod landings by unregulated gears have increased slightly in 2013, from 7.3t in 2012 to 13.7t, which constituted 15% of the total cod landings. The main part of the cod landings by unregulated gears, 11.8t, were taken by Swedish otter trawls targeting Pandalus (The unregulated gear category "Otter", with a mesh size range of 32-54mm). The cod landings taken by gill nets and trammel nets were small, 2.7t in 2013.

The cod discards in the regulated TR2 fishery, the fishery that generates the majority of the discards in Kattegat, have generally decreased over the time series from 2003. However, in 2013 the TR2 cod discards increased significantly from 2012. It should be mentioned that Sweden had a cod quota closure from May 28th onwards, when cod landings were not allowed but the fishery was still open for catch of other species, resulting in a Swedish cod discard rate of nearly 100% for that time period. It should also be noted that the cod discards in the gear category TR2, SPECON "none", in 2013 are believed to be overestimated due to an allocation of discards to Germany, a result of the automatic data processing procedure. The allocation was based on the Swedish TR2 discard rate in quarter four, which was 99.7% due to the quota closure, and resulted in 47t of cod discards in the German TR2 fishery. Since the German TR2 fishery in Kattegat is insignificant, with cod landings of 0.14t and an effort of 2646kWd in 2013, the German TR2 discard estimate of 47t is considered unrealistic and should not be taken into account. Without the German TR2 discards, the TR2 cod discards in Kattegat 2013 were 278t, an increase from 2012 by 156t and 84% in weight of the TR2 cod catches in Kattegat 2013. The majority of the discarded cod was of age 1-2, with the largest increase in 2013 at age 1 (ICES WGBFAS Report 2014). The TR2 landings for 2012 and 2013 were 73 and 64 tonnes respectively, which give an increase of the total TR2 cod catches from 196t in 2012 to 341t in 2013, the German TR2 discards not included.

Unregulated gears are not sampled for discards in Kattegat, apart from Swedish *Nephrops* trawls with a sorting grid, under the derogation CPart11. The cod discards for CPart11 showed a similar pattern as the TR2 cod discards in 2013 and increased from 12.1t in 2012 to 47.7t.

The landings of non-cod species in Kattegat have also decreased steadily since 2003, apart from the landings of *Nephrops*, the main target species in Kattegat in recent years, which have remained quite stable through the whole time series. The landings and discards of the most important species by regulated gears are shown in Table 5.2.2.1a-b and in Figure 5.2.2.2. Landings by unregulated gears for cod, plaice, sole and *Nephrops* are shown in Tables 5.2.2.3 to 5.2.2.6.

Pelagic fisheries are not sampled for discards in Kattegat and it is therefore not possible to give a meaningful estimate of pelagic discards. Discards in pelagic fisheries are to a large extent caused by slipping (discarding of the whole catch), which is very difficult to sample since the frequency of slipping events is believed to vary largely between seasons and areas and could also potentially be subject to a significant observer effect.

STECF EWG 14-13 report includes an index of discard coverage DQI, by year, gear category, derogation and species, which is presented in Table 5.2.2.9. The criteria of the index are described in section 4.5.

Table 5.2.2.1.a. Kattegat landings (L) in tonnes, discards (D) and discard rate (R) of cod (COD), haddock (HAD), *Nephrops* (NEP), plaice (PLE), sole (SOL) and whiting (WGH) by regulated gear category and derogation 2004-2008. The derogations CPart11 and IIA83B are considered unregulated and are not included. Landings of the most important species by unregulated gears are shown in Table 5.2.2.3-6.

REG. GEAR	SPECON	SPECIES	2004 L	2004 D	2004 R	2005 L	2005 D	2005 R	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R
GN1	NONE	COD	35.977	199.049	0.847	26.641			25.552			28.81			46.62		
GT1	NONE	COD	14.662	1.491	0.092	6.667			3.187			4.097			3.106		
LL1	NONE	COD	1.566			0.687			2.649			0.228			13.507		
TR1	NONE	COD	110.844	57.038	0.340	120.203	29.484	0.197	50.902	20.232	0.284	84.996	55.374	0.394	32.749	9.715	0.229
TR2	CPART13B	COD															
TR2	CPART13C	COD															
TR2	NONE	COD	983.038	1152.44	0.540	643.056	485.42	0.430	641.663	821.111	0.561	461.626	440.378	0.488	305.275	136.914	0.310
TR3	NONE	COD	8.102	57.134	0.876	7.187			2.759			1.08			0.283		
Sum of COD landings			1154.189			804.441			726.712			580.837			401.54		
GN1	NONE	HAD	2.614	0.093	0.034	0.115			0.075			0.82			2.239		
GT1	NONE	HAD	0.02	0.005	0.200	0.278			0.09			0.222			1.173		
LL1	NONE	HAD							0.045						0.91		
TR1	NONE	HAD	2.262	1.05	0.317	3.883	0.444	0.103	2.749	5.696	0.674	8.84	3.105	0.260	6.662	2.264	0.254
TR2	CPART13B	HAD															
TR2	CPART13C	HAD															
TR2	NONE	HAD	48.991	111.135	0.694	116.936	37.23	0.241	60.976	158.015	0.722	141.557	27.291	0.162	136.988	35.725	0.207
TR3	NONE	HAD	0.764	0.112	0.128	0.034			0.038			0.013			0.034		
Sum of HAD landings			54.651			121.246			63.973			151.452			148.006		
GN1	NONE	NEP	0.409	0.287	0.412	0.025			0.056			0.17			0.221		
GT1	NONE	NEP	0	0.015	1.000	0.786			0.003			0.28			0.126		
LL1	NONE	NEP															
TR1	NONE	NEP	5.976	2.397	0.286	6.404	3.899	0.378	5.623	10.749	0.657	29.202	34.506	0.542	63.402	41.858	0.398
TR2	CPART13B	NEP															
TR2	CPART13C	NEP															
TR2	NONE	NEP	1610.176	833.378	0.341	1424.215	719.093	0.336	1193.641	644.332	0.351	1583.066	974.173	0.381	1779.913	888.781	0.333
TR3	NONE	NEP	0.248	0.191	0.435	0.297			1.71			0.523			1.096		
Sum of NEP landings			1616.809			1431.727			1201.033			1613.241			1844.758		
GN1	NONE	PLE	114.03	246.979	0.684	77.001			72.264			63.86			61.128		
GT1	NONE	PLE	34.974	45.808	0.567	36.215			44.965			28.538			39.505		
LL1	NONE	PLE															
TR1	NONE	PLE	331.451	264.625	0.444	407.52	181.228	0.308	484.57	273.844	0.361	449.194	355.869	0.442	281.735	225.288	0.444
TR2	CPART13B	PLE															
TR2	CPART13C	PLE															
TR2	NONE	PLE	800.15	752.743	0.485	495.556	363.532	0.423	693.637	538.286	0.437	588.122	642.968	0.522	481.069	294.351	0.380
TR3	NONE	PLE	0.589	3.632	0.860	0.127			0.654			0.395			0.534		
Sum of PLE landings			1281.194			1016.419			1296.09			1130.109			863.971		
GN1	NONE	SOL	32.85	652.861	0.952	109.759			102.533			64.605			57.436		
GT1	NONE	SOL	4.336	50.834	0.921	17.111			16.729			15.094			15.818		
LL1	NONE	SOL															
TR1	NONE	SOL	4.583	1.356	0.228	9.694	0.055	0.006	17.276	0.049	0.003	9.231	0.18	0.019	6.881	0.748	0.098
TR2	CPART13B	SOL															
TR2	CPART13C	SOL															
TR2	NONE	SOL	163.218	72.403	0.307	249.57	4.042	0.016	270.648	3.17	0.012	215.463	3.393	0.016	214.77	12.984	0.057
TR3	NONE	SOL	0.013	4.545	0.997	0.064			0.041			0.026			0.201		
Sum of SOL landings			205			386.198			407.227			304.419			295.106		
GN1	NONE	WHG	0.123	0.379	0.755	0.068			0.017			0.097			0.356		
GT1	NONE	WHG	0.004	0.02	0.833	0.011			0.067			0.181			0.175		
LL1	NONE	WHG				0.007			0.02			0.002					
TR1	NONE	WHG	0.302	5.714	0.950	1.388	5.531	0.799	0.288	8.748	0.968	1.9	21.016	0.917	1.506	9.001	0.857
TR2	CPART13B	WHG															
TR2	CPART13C	WHG															
TR2	NONE	WHG	81.003	2280.338	0.966	65.84	891.909	0.931	69.387	627.849	0.900	65.27	1001.148	0.939	40.719	255.159	0.862
TR3	NONE	WHG	0.013	0.106	0.891	0.001						0.01			0.001		
Sum of WHG landings			81.445			67.315			69.779			67.46			42.757		

Table 5.2.2.1.b. Kattegat landings (L) in tonnes, discards (D) and discard rate (R) of cod (COD), haddock (HAD), *Nephrops* (NEP), plaice (PLE), sole (SOL) and whiting (WGH) by regulated gear category and derogation 2009-2013. The derogations CPart11 and IIA83B are considered unregulated and are not included. Landings of the most important species by unregulated gears are shown in Table 5.2.2.3-6. The cod discards by the TR2 gear category, SPECON "none", in 2013 are believed to be overestimated due to an automatic allocation of discards to Germany. The allocation was based on the Swedish discard rate in quarter four, when Sweden had a quota closure for cod and therefore had a discard rate of almost 100%, and resulted in 47 tonnes of cod discards in the small German TR2 fishery. Since this is considered highly unrealistic, the cod discards in the TR2 "none" are probably closer to the 91t estimated in the Swedish TR2 "none" fishery in 2013.

REG. GEAR	SPECON	SPECIES	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R	2013 L	2013 D	2013 R
GN1	NONE	COD	13.615	100.748	0.881	10.048	4.178	0.294	2.864	35.352	0.925	0.545	0.156	0.223	2.673	3.216	0.546
GT1	NONE	COD	1.208	1.312	0.521	0.73	0	0.000	0.016	0.276	0.945	0.03	0.011	0.268	0.042	0.024	0.364
LL1	NONE	COD															
TR1	NONE	COD	17.437	0.614	0.034	4.078	2.304	0.361	1.522	3.846	0.716	1.989	4.467	0.692	0.681	2.237	0.767
TR2	CPART13B	COD				0.15			0.018								
TR2	CPART13C	COD				85.105	177.723	0.676	81.139	155.18	0.657	49	104.224	0.680	45.132	187.682	0.806
TR2	NONE	COD	123.781	55.427	0.309	27.336	10.257	0.273	38.127	21.426	0.360	24.263	18.246	0.429	18.477	137.193	0.881
TR3	NONE	COD	0.075						0.053			0.74			0.022		
Sum of COD landings			156.116			127.447			123.739			76.567			67.027		
GN1	NONE	HAD	0.16			0.002	0	0.000				0.002	0	0.000	0		
GT1	NONE	HAD	0.16			0.014	0	0.000	0.006								
LL1	NONE	HAD															
TR1	NONE	HAD	5.912	0.472	0.074	0.804	1.21	0.601	0.155	1.067	0.873	0.283	0.311	0.524	0.065	0.469	0.878
TR2	CPART13B	HAD				0.067			0.002								
TR2	CPART13C	HAD				17.512	56.923	0.765	11.067	114.067	0.912	3.929	4.387	0.528	8.251	21.138	0.719
TR2	NONE	HAD	67.801	46.55	0.407	6.457	5.728	0.470	3.99	2.874	0.419	0.654	11.701	0.947	0.829	16.165	0.951
TR3	NONE	HAD							0.003			1.729					
Sum of HAD landings			74.033			24.856			15.223			6.597			9.145		
GN1	NONE	NEP	0	0.061	1.000	0.001	0	0.000	0.091	0	0.000				0.053	0	0.000
GT1	NONE	NEP	1.15	0.003	0.003	0.002			0.986						0.007	0	0.000
LL1	NONE	NEP										0.152					
TR1	NONE	NEP	17.321	10.062	0.367	34.668	17.456	0.335	20.467	17.945	0.467	65.613	94.075	0.589	43.516	54.616	0.557
TR2	CPART13B	NEP				16.387			5.258								
TR2	CPART13C	NEP				1680.76	848.767	0.336	1086.2	1278.64	0.541	1350.87	1972.92	0.594	1204.65	1582.99	0.568
TR2	NONE	NEP	1628.27	1050.76	0.392	133.253	119.169	0.472	101.141	67.138	0.399	112.569	103.012	0.478	85.43	41.658	0.328
TR3	NONE	NEP	0.807			0.003			1.097						0.051		
Sum of NEP landings			1647.55			1865.07			1215.24			1529.2			1333.7		
GN1	NONE	PLE	26.98	9.782	0.266	21.522	4.561	0.175	10.499	18.813	0.642	11.291	5.003	0.307	12.832	1.161	0.083
GT1	NONE	PLE	6.626	0.867	0.116	9.976	0.548	0.052	5.714	14.124	0.712	2.689	1.415	0.345	11.833	0.011	0.001
LL1	NONE	PLE															
TR1	NONE	PLE	187.133	73.565	0.282	55.411	42.551	0.434	60.669	35.543	0.369	21.831	53.254	0.709	4.858	18.657	0.793
TR2	CPART13B	PLE				1.791			0.166								
TR2	CPART13C	PLE				256.354	1029.6	0.801	202.833	1090.62	0.843	136.954	314.269	0.696	164.474	675.193	0.804
TR2	NONE	PLE	295.97	606.134	0.672	34.688	94.444	0.731	14.202	59.214	0.807	12.264	16.975	0.581	18.894	43.421	0.697
TR3	NONE	PLE	0.191			0.221			0.066			0.257			0.003		
Sum of PLE landings			516.9			379.963			294.149			185.286			212.894		
GN1	NONE	SOL	72.474	3.129	0.041	58.238	1.762	0.029	60.753	0.678	0.011	26.422	0.202	0.008	29.348	4.178	0.125
GT1	NONE	SOL	14.651	0.263	0.018	21.044	0.303	0.014	20.182	0.177	0.009	8.778	0.102	0.011	18.521	0.047	0.003
LL1	NONE	SOL										0.003					
TR1	NONE	SOL	2.252	0.231	0.093	1.638	0.683	0.294	0.975	0.158	0.139	4.082	0.042	0.010	1.792	0.059	0.032
TR2	CPART13B	SOL				1.094			0.007								
TR2	CPART13C	SOL				132.504	45.96	0.258	153.813	16.938	0.099	102.579	2.212	0.021	74.081	3.39	0.044
TR2	NONE	SOL	170.132	15.777	0.085	6.146	0.607	0.090	4.048	0.415	0.093	0.689	2.55	0.787	3.688	1.169	0.241
TR3	NONE	SOL	0.147			0.082			0.005								
Sum of SOL landings			259.656			220.746			239.783			142.553			127.43		
GN1	NONE	WHG	0	1.089	1.000	0	0.8	1.000	0	0.114	1.000				0	0.008	1.000
GT1	NONE	WHG	0	0.092	1.000	0.012	0.271	0.958	0	0.053	1.000						
LL1	NONE	WHG															
TR1	NONE	WHG	0.359	1.15	0.762	0.116	0.874	0.883	0.006	0.1	0.943	0.009	0.741	0.988	0.029	1.145	0.975
TR2	CPART13B	WHG				0.004			0.003								
TR2	CPART13C	WHG				7.644	305.756	0.976	7.152	288.584	0.976	4.901	124.5	0.962	4.204	137.313	0.970
TR2	NONE	WHG	22.495	170.373	0.883	6.758	37.712	0.848	5.108	34.651	0.872	1.838	11.653	0.864	2.935	72.558	0.961
TR3	NONE	WHG	0.001									22.77			4.794		
Sum of WHG landings			22.855			14.534			12.269			29.518			11.962		

Detailed information by country is downloadable and provided on the STECF EWG 14-13 website: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1413

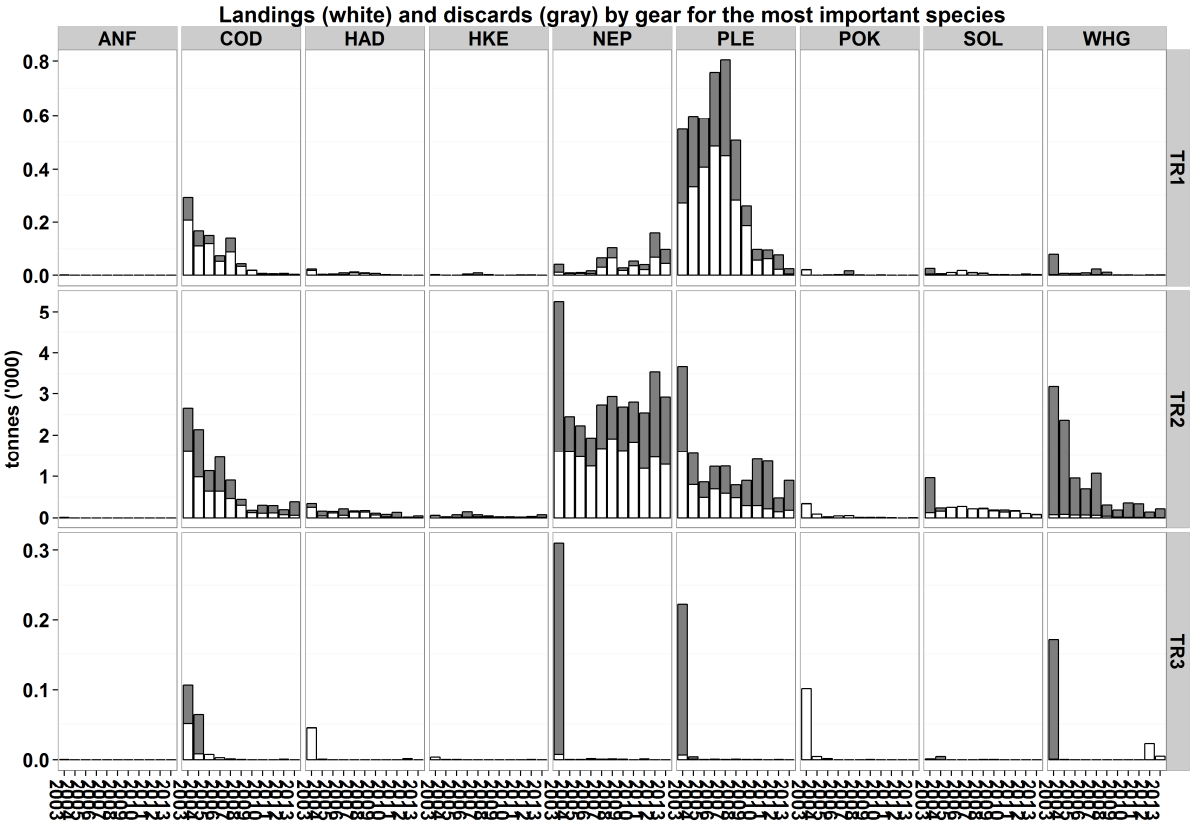


Figure 5.2.2.2. Landings (white) and discards (grey) in tonnes by the regulated gear categories TR1, TR2 and TR3 and by species in Kattegat 2003-2013. The derogations CPart11 and IIA83b are not included in the TR2 gear category above, since they are considered unregulated. Note that the scale on the y-axis differs between the gears.

Table 5.2.2.3 Unregulated gears, landings (t) of cod in Kattegat 2003-2013. Unregulated gears are not sampled for discards in Kattegat except for the Swedish sorting grid, derogation CPart11. The discards of cod for the derogation CPart11 in 2013 were 47.7 tonnes, an increase from 12.1 tonnes in 2012.

COUNTRY	GEAR	SPECON	SPECIES	2004 L	2005 L	2006 L	2007 L	2008 L	2009 L	2010 L	2011 L	2012 L	2013 L
DEN	DEM_SEINE	NONE	COD	0	0	0	0	0	0	0	0	0	0
DEN	NONE	NONE	COD	3.0	5.7	10.2	1.1	0.1	0.2	0	0.3	0.4	0.6
DEN	OTTER	NONE	COD	8.0	7.6	13.9	0.6			0.2	0.0	0	0
DEN	PEL_TRAWL	NONE	COD	3.8	5.0	5.0	0.4	0.1	0.1	0.1	0.2	3.8	1.0
DEN	POTS	NONE	COD	0	0	0	0	0	0	0	0	0	0
SWE	NONE	NONE	COD	0	0	0	0	0	0	0	0.3	0	0.1
SWE	OTTER	NONE	COD	0.6	4.9	4.5	4.6	4.4	8.7	3.2	1.1	2.9	11.8
SWE	PEL_TRAWL	NONE	COD	0	0	0	3.6	0	0	0	0	0	0
SWE	POTS	NONE	COD	0	0	0	0	0	0	0	0	0	0
SWE	TR2	CPART11	COD	0	0	0	0	0	0.1	0.2	0.4	0.1	0
SWE	TR2	IIA83B	COD	0	0.3	0	0.3	0.2	0	0	0	0	0
Total				15.3	23.5	33.6	10.5	4.8	9.1	3.7	2.3	7.3	13.6

Table 5.2.2.4 Unregulated gears, landings (t) of plaice in Kattegat 2003-2013. Discards for unregulated gears are not sampled for discards in Kattegat except for the Swedish sorting grid, derogation CPart11. The discards of plaice for the derogation CPart11 in 2013 were 52.9 tonnes.

COUNTRY	GEAR	SPECON	SPECIES	2004 L	2005 L	2006 L	2007 L	2008 L	2009 L	2010 L	2011 L	2012 L	2013 L
DEN	DEM_SEINE	NONE	PLE	0	0.7	0	0	0	0	0	0	0	0
DEN	NONE	NONE	PLE	11.1	1.3	3.9	7.2	1.8	0.6	0.7	0.3	1.6	1.9
DEN	OTTER	NONE	PLE	0.2	0.6	4.4	1.6	0.6	0.4	0.3	0.1	0	0.1
DEN	PEL_TRAWL	NONE	PLE	0.3	0	0.5	0.2	0.1	0.1	0.1	0	1.2	0.1
DEN	POTS	NONE	PLE	0	0	0	0	0	0	0	0	0	0
GER	OTTER	NONE	PLE	0	0	0.1	0	0	0	0	0	0	0
SWE	OTTER	NONE	PLE	0	0.1	0.8	0.7	1.1	3.2	1.9	0.1	0.2	1.4
SWE	TR2	CPART11	PLE	0	0	0	0	0	3.2	2.8	1.2	1.0	3.5
SWE	TR2	IIA83B	PLE	0	0.1	0.3	0.7	1.7	0	0	0	0	0
Total				11.6	2.9	10.0	10.4	5.2	7.6	5.8	1.7	4.1	6.9

Table 5.2.2.5 Unregulated gears, landings of sole in Kattegat 2003-2013. Discards for unregulated gears are not sampled for discards in Kattegat except for the Swedish sorting grid, derogation CPart11. The discards of sole for the derogation CPart11 in 2013 were 1.5 tonnes.

COUNTRY	GEAR	SPECON	SPECIES	2004 L	2005 L	2006 L	2007 L	2008 L	2009 L	2010 L	2011 L	2012 L	2013 L
DEN	DEM_SEINE	NONE	SOL	0	0	0	0	0	0	0	0	0	0
DEN	NONE	NONE	SOL	1.3	2.4	2.2	2.7	1.3	0.2	0.1	0.2	1.8	1.6
DEN	OTTER	NONE	SOL	0	0.3	1.5	0.3	0.1	0.2	0.1	0.1	0	0
DEN	PEL_TRAWL	NONE	SOL	0.2	0	0	0	0	0	0.1	0	0	0
DEN	POTS	NONE	SOL	0	0	0	0	0	0	0	0	0	0
GER	OTTER	NONE	SOL	0	0	0.1	0	0	0	0	0	0	0
SWE	OTTER	NONE	SOL	0	0	0	0	0	0	0	0	0	0.1
SWE	TR2	CPART11	SOL	0	0	0	0	0	0.8	1.7	1.5	0.4	1.3
SWE	TR2	IIA83B	SOL	0	0.5	0.5	0.8	0.9	0	0	0	0	0
Total				1.5	3.2	4.2	3.8	2.3	1.2	1.9	1.9	2.2	3.0

Table 5.2.2.6 Unregulated gears, landings of *Nephrops* in Kattegat 2003-2013. Discards for unregulated gears are not sampled for discards in Kattegat except for the Swedish sorting grid, derogation CPart11. The discards of *Nephrops* for the derogation CPart11 in 2013 were 155 tonnes.

COUNTRY	GEAR	SPECON	SPECIES	2004 L	2005 L	2006 L	2007 L	2008 L	2009 L	2010 L	2011 L	2012 L	2013 L
DEN	NONE	NONE	NEP	2.1	1.9	6.2	4.5	2.0	1.9	0.7	0.9	6.0	3.8
DEN	OTTER	NONE	NEP	0.7	1.2	1.3	0.3	0.7	1.6	1.9	0.7	0	0.3
DEN	PEL_TRAWL	NONE	NEP	0.5	0.1	1.5	0	0.8	0.1	0.9	0	0	0
DEN	POTS	NONE	NEP	0	0	0	0	0	0	0	0	0	0
GER	OTTER	NONE	NEP	0	0	0.3	0	0	0	0	0	0	0
SWE	OTTER	NONE	NEP	0	0.1	0.4	0.2	0.4	1.4	0.3	0	0.1	0.2
SWE	POTS	NONE	NEP	7.3	3.9	6.4	9.9	9.9	8.0	5.8	4.7	8.5	5.5
SWE	TR2	CPART11	NEP	0	0	0	0	0	240.9	264.0	202.2	274.4	235.5
SWE	TR2	IIA83B	NEP	2.9	46.2	51.3	95.5	129.3	0	0	0	0	0
Total				13.4	53.5	67.4	110.3	143.2	253.8	273.6	208.5	288.9	245.2

Relative changes in catch data since last submissions:

There were no changes compared to the data submission in 2012 for the most important species in Kattegat.

Table 5.2.2.9. Kattegat Index of Discard Coverage (DQI) for cod (COD), *Nephrops* (NEP), plaice (PLE), sole (SOL) and whiting (WHG) by regulated gear category and derogation 2003-2013. The derogations CPart11 and IIA83B are considered unregulated and are not included. A≥67% of landings are covered with discard estimates, B≥34% and ≤66% of the landings are covered with discard estimates, C≤33% of the landings are covered with discard estimates.

ANNEX	REG.AREA	REG.GEAR	SPECON	SPECIES	2004 DQI	2005 DQI	2006 DQI	2007 DQI	2008 DQI	2009 DQI	2010 DQI	2011 DQI	2012 DQI	2013 DQI
IIA	3A	GN1	NONE	COD	C					C	B	C	C	B
IIA	3A	GT1	NONE	COD	C					C	C	C	C	C
IIA	3A	LL1	NONE	COD										
IIA	3A	TR1	NONE	COD	A	A	A	B	A	A	A	A	C	B
IIA	3A	TR2	CPART13B	COD										
IIA	3A	TR2	CPART13C	COD							A	A	A	A
IIA	3A	TR2	NONE	COD	A	A	A	A	A	A	A	A	A	A
IIA	3A	TR3	NONE	COD	C									
IIA	3A	GN1	NONE	HAD	C						A		B	
IIA	3A	GT1	NONE	HAD	C						A			
IIA	3A	LL1	NONE	HAD										
IIA	3A	TR1	NONE	HAD	A	A	A	B	A	A	A	A	C	B
IIA	3A	TR2	CPART13B	HAD										
IIA	3A	TR2	CPART13C	HAD							A	A	A	A
IIA	3A	TR2	NONE	HAD	A	A	A	A	A	A	A	A	A	A
IIA	3A	TR3	NONE	HAD	C									
IIA	3A	GN1	NONE	NEP	C					C	C	C		A
IIA	3A	GT1	NONE	NEP	A					C				B
IIA	3A	LL1	NONE	NEP										
IIA	3A	TR1	NONE	NEP	A	A	A	A	A	A	A	A	B	A
IIA	3A	TR2	CPART13B	NEP										
IIA	3A	TR2	CPART13C	NEP							A	A	A	A
IIA	3A	TR2	NONE	NEP	A	A	A	A	A	A	A	A	A	A
IIA	3A	TR3	NONE	NEP	B									
IIA	3A	GN1	NONE	PLE	C					C	B	C	B	B
IIA	3A	GT1	NONE	PLE	C					C	B	C	C	C
IIA	3A	LL1	NONE	PLE										
IIA	3A	TR1	NONE	PLE	A	A	A	C	A	A	A	A	C	B
IIA	3A	TR2	CPART13B	PLE										
IIA	3A	TR2	CPART13C	PLE							A	A	A	A
IIA	3A	TR2	NONE	PLE	A	A	A	A	A	A	A	A	A	A
IIA	3A	TR3	NONE	PLE	B									
IIA	3A	GN1	NONE	SOL	C					B	B	C	C	C
IIA	3A	GT1	NONE	SOL	C					B	C	C	C	C
IIA	3A	LL1	NONE	SOL										
IIA	3A	TR1	NONE	SOL	A	A	A	A	A	A	A	A	C	A
IIA	3A	TR2	CPART13B	SOL										
IIA	3A	TR2	CPART13C	SOL							A	A	A	A
IIA	3A	TR2	NONE	SOL	A	A	A	A	A	A	A	A	B	A
IIA	3A	TR3	NONE	SOL	A									
IIA	3A	GN1	NONE	WHG	C					C	A	C		A
IIA	3A	GT1	NONE	WHG	C					A	C	A		
IIA	3A	LL1	NONE	WHG										
IIA	3A	TR1	NONE	WHG	A	A	A	A	A	A	A	C	A	B
IIA	3A	TR2	CPART13B	WHG										
IIA	3A	TR2	CPART13C	WHG							A	A	A	A
IIA	3A	TR2	NONE	WHG	B	A	A	A	A	A	A	A	A	A
IIA	3A	TR3	NONE	WHG	C									

5.2.3 ToR 1.d CPUE and LPUE of cod by fisheries and Member States

STECF EWG 14-13 presents the estimated trends in CPUE and LPUE for cod, plaice and sole in figures and tables below. CPUE and LPUE by unregulated gears are not presented in this report but can be found on the JRC website: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1413

CPUE for cod in Kattegat has decreased for the regulated TR2 gears since 2003 but increased between 2012 and 2013, which was also reflected in the increased cod discards for this gear in 2013 (described in section 5.2.2). LPUE in 2013 remained on a similar level as recent years. The most prominent increase in CPUE is found in the regulated Swedish TR2 fishery, SPECON "none", from 165 to 441g/kWday in 2013. For the unregulated gears (not shown here) the CPUE for *Nephrops* trawls with a sorting grid (derogation CPart11), increased from 22g/kWd in 2012 to 80g/kWd in 2013.

The very high CPUE values for gillnets (GN1) and trammel nets (GT1) in 2003 and 2004 are due to a very high discard rate for those gears and is believed to be the result of poor discard estimates, which is also reflected in the Index of Discard Coverage (shown in Table 5.2.2.9).

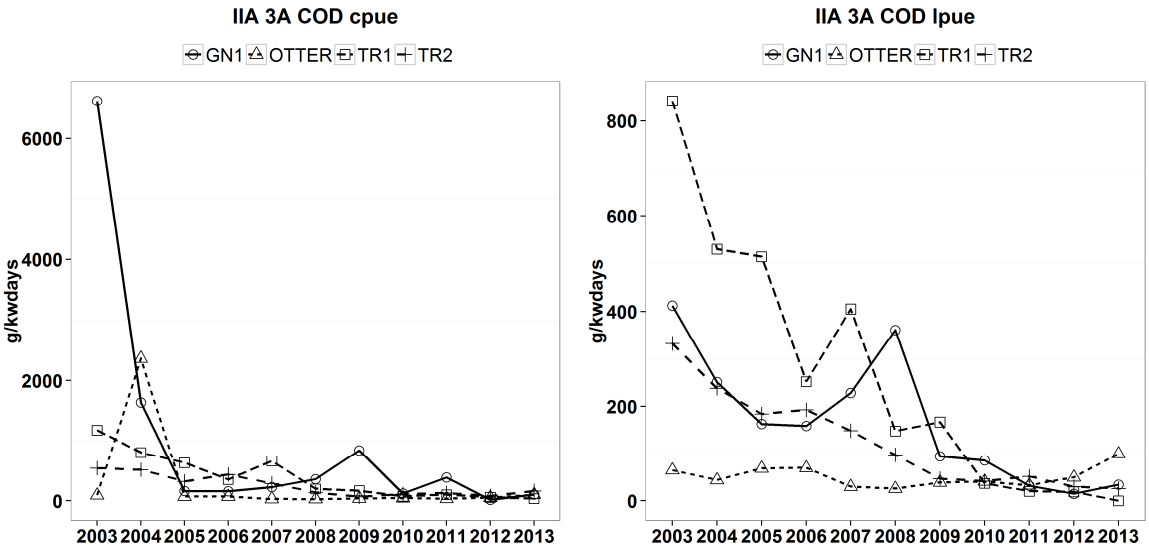


Figure 5.2.3.1 Left: CPUE (g/kWday) of cod by gear category (no special conditions) 2003-2013. Right: LPUE (g/kWday) of cod by gear category 2003-2013. CPUE and LPUE for the derogations CPart11 and IIA83b are not included in the TR2 gear category in this figure. Note that the scale on the y-axis differs between the panels.

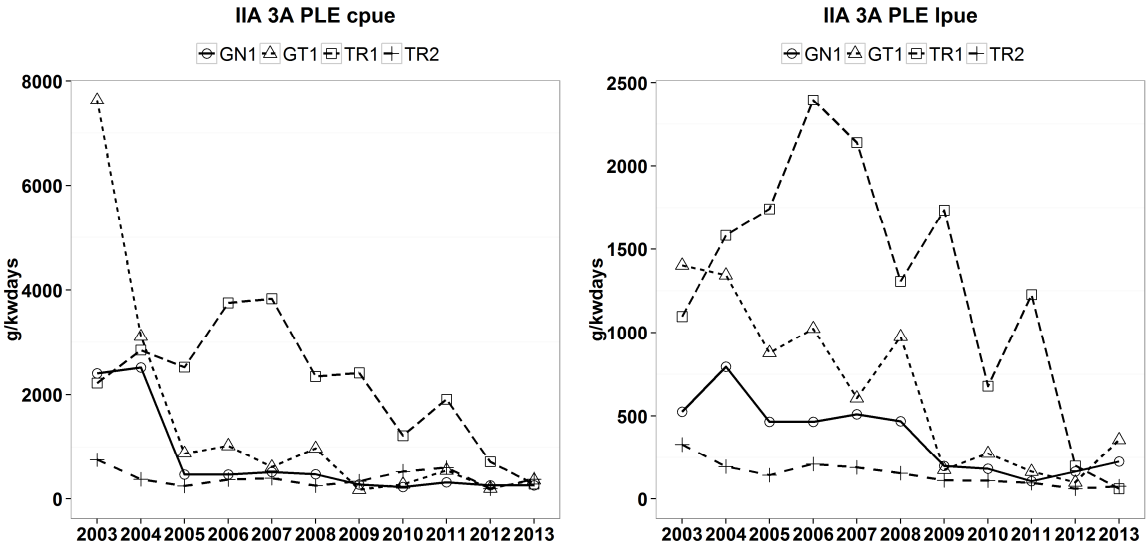


Figure 5.2.3.2 Left: CPUE (g/kWday) of plaice by gear category (no special condition) 2003-2013. Right: LPUE (g/kWday) of plaice by gear category 2003-2013. CPUE and LPUE for the derogations CPart11 and IIA83b are not included in the TR2 gear category in this figure. Note that the scale on the y-axis differs between the panels.

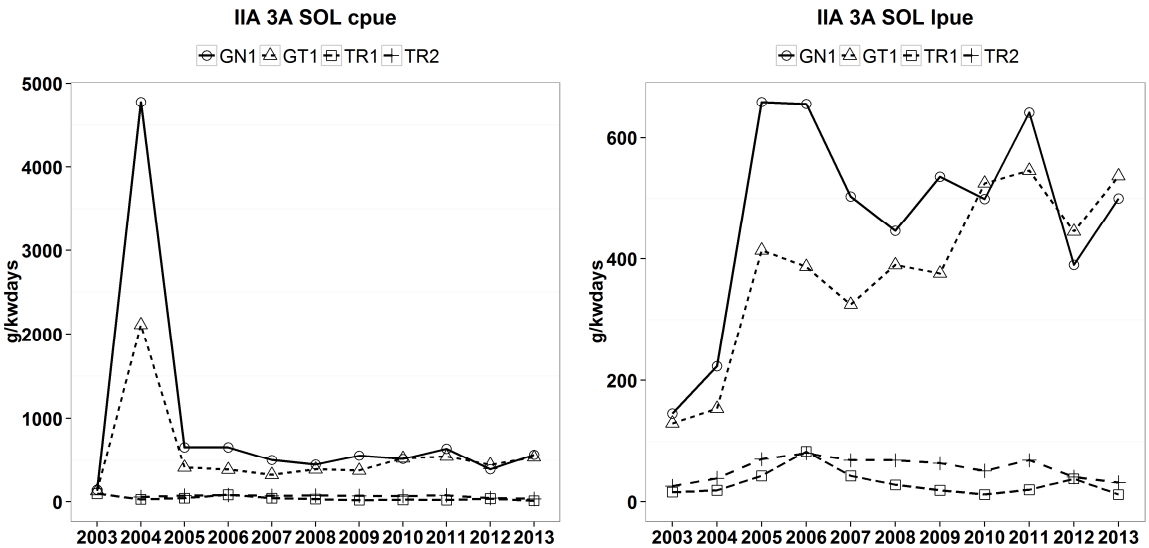


Figure 5.2.3.3 Left: CPUE (g/kWday) of sole by gear category (no special condition) 2003-2013. Right: LPUE (g/kWday) of sole by gear category 2003-2013. CPUE and LPUE for the derogations CPart11 and IIA83b are not included in the TR2 gear category in this figure. Note that the scale on the y-axis differs between the panels.

Table 5.2.3.1. CPUE (g/kWd) of cod (COD), *Nephrops* (NEP), sole (SOL) and plaice (PLE) by regulated gear, country and derogation in Kattegat 2003-2013. The CPUE for cod in the German TR2 fishery, SPECON "none", is the result of an automatic allocation of discards in the data processing procedure and is not correct. The allocation was based on the Swedish discard rate in quarter four, when Sweden had a quota closure for cod and a discard rate of almost 100%, and resulted in 47 tonnes of cod discards in the very small German TR2 fishery. The derogation CPart11/IIa83b is not included in the TR2 CPUE, since it is considered an unregulated gear.

ANNEX	SPECIES	REG.AREA	REG.GEAR	SPECON	COUNTRY	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012	CPUE 2013	CPUE 2011-2013
IIA	COD	3A	GN1	NONE	GER	280	37	130	101	32	0	0	326		245	217
IIA	COD	3A	GN1	NONE	SWE	735	208	271	134	336	1842	0		0	0	0
IIA	COD	3A	GN1	NONE	DEN	1953	186	154	317	532	675	217	649	51	145	374
IIA	COD	3A	GT1	NONE	SWE	533	390	52	59	103	114	0	0	0	0	0
IIA	COD	3A	GT1	NONE	DEN	676	71	81	168	0	0	0	0	0	0	0
IIA	COD	3A	LL1	NONE	SWE		94	109	0	555	0	0	0	0	0	0
IIA	COD	3A	LL1	NONE	DEN	649	0		0	0	0	0				0
IIA	COD	3A	TR1	NONE	SWE	4166	1327	1744	1970	156	143	73	0	0	594	372
IIA	COD	3A	TR1	NONE	GER	2929	2608	1710	362	0	0	0	0	0	0	0
IIA	COD	3A	TR1	NONE	DEN	516	506	282	536	218	169	74	103	59	25	57
IIA	COD	3A	TR2	CPART13B	GER	0	0	0	0	0	0	0	0	0	0	0
IIA	COD	3A	TR2	CPART13C	DEN	0	0	0	0	0	0	111	118	69	109	98
IIA	COD	3A	TR2	NONE	DEN	318	230	314	246	131	56	0	0	0	0	0
IIA	COD	3A	TR2	NONE	GER	282	133	194	85	26	0	0	211	0	17763	3315
IIA	COD	3A	TR2	NONE	SWE	1116	580	710	383	173	126	134	210	165	441	268
IIA	COD	3A	TR3	NONE	DEN	134	14	8	3	0	0		0	14	0	9
IIA	NEP	3A	GN1	NONE	GER											0
IIA	NEP	3A	GN1	NONE	SWE				0	0						0
IIA	NEP	3A	GN1	NONE	DEN	0	0	0	0	0	0	0	0		0	0
IIA	NEP	3A	GT1	NONE	SWE			0	0	0	0	0				0
IIA	NEP	3A	GT1	NONE	DEN	0	35		0		45		88		0	44
IIA	NEP	3A	LL1	NONE	DEN		0		0	0	0	0		0		0
IIA	NEP	3A	TR1	NONE	GER				0	0	0	0	0	4641	1810	4064
IIA	NEP	3A	TR1	NONE	SWE	0	40	0	1465	990	1145	440	0	0	594	372
IIA	NEP	3A	TR1	NONE	DEN	42	49	83	184	307	198	681	801	1376	1199	1193
IIA	NEP	3A	TR2	CPART13B	GER	0	0	0	0	0	0	799	1196	0	0	1196
IIA	NEP	3A	TR2	CPART13C	DEN	0	0	0	0	0	0	1063	1182	1488	1301	1329
IIA	NEP	3A	TR2	NONE	SWE	516	424	415	809	999	862	822	548	799	501	617
IIA	NEP	3A	TR2	NONE	DEN	619	686	617	835	801	1032	0	0	0	0	0
IIA	NEP	3A	TR2	NONE	GER	408	266	872	566	723	1255	1774	2002	3025	1134	2030
IIA	NEP	3A	TR3	NONE	DEN	0	0	6	3	7	0	0	39		0	9
IIA	PLE	3A	GN1	NONE	SWE	1131	104	136	268	122	181	93	218	200	179	200
IIA	PLE	3A	GN1	NONE	GER	420	186	208	151	95	130	154	326	84	122	217
IIA	PLE	3A	GN1	NONE	DEN	3001	550	607	757	820	350	310	368	455	363	385
IIA	PLE	3A	GT1	NONE	DEN	1420	602	1010	587	936	178	299	351	189	340	310
IIA	PLE	3A	GT1	NONE	SWE	5331	1481	1043	615	991	171	263	635	201	362	428
IIA	PLE	3A	LL1	NONE	DEN		0		0	0	0	0				0
IIA	PLE	3A	TR1	NONE	GER	0	602	1710	543	0	0	0	0	232	0	185
IIA	PLE	3A	TR1	NONE	SWE	265	121	388	960	122	143	220	0	0	0	0
IIA	PLE	3A	TR1	NONE	DEN	3087	2863	3903	4242	3195	2570	1422	1952	733	290	839
IIA	PLE	3A	TR2	CPART13B	GER	0	0	0	0	0	0	100	0	0	0	0
IIA	PLE	3A	TR2	CPART13C	DEN	0	0	0	0	0	0	541	647	202	392	405
IIA	PLE	3A	TR2	NONE	DEN	424	273	423	400	297	360	0	0	0	0	0
IIA	PLE	3A	TR2	NONE	GER	157	133	97	141	103	351	280	211	0	378	203
IIA	PLE	3A	TR2	NONE	SWE	241	175	262	399	148	231	446	265	111	247	208
IIA	PLE	3A	TR3	NONE	DEN	8	0	3	0	0	0	0	0	0	0	0
IIA	SOL	3A	GN1	NONE	GER	6718	1230	1117	831	855	950	1024	1396	843	1102	1180
IIA	SOL	3A	GN1	NONE	DEN	5284	589	578	427	471	550	496	519	404	580	513
IIA	SOL	3A	GN1	NONE	SWE		0	0	0	0	302	248	255	228	359	271
IIA	SOL	3A	GT1	NONE	SWE	3554	234	313	263	342	400	564	635	535	616	605
IIA	SOL	3A	GT1	NONE	DEN	1014	496	444	503	510	357	448	351	189	170	266
IIA	SOL	3A	LL1	NONE	DEN		0		0	0	0	0		0		0
IIA	SOL	3A	TR1	NONE	GER	0	0	0	0	0	0	0	0	0	0	0
IIA	SOL	3A	TR1	NONE	SWE	0	0	0	0	0	0	0	0	0	0	0
IIA	SOL	3A	TR1	NONE	DEN	31	49	89	49	45	20	30	21	40	13	26
IIA	SOL	3A	TR2	CPART13B	GER	0	0	0	0	0	0	50	0	0	0	0
IIA	SOL	3A	TR2	CPART13C	DEN	0	0	0	0	0	0	75	85	47	36	55
IIA	SOL	3A	TR2	NONE	GER	126	0	0	57	103	50	93	105	378	0	135
IIA	SOL	3A	TR2	NONE	SWE	25	18	18	17	16	14	21	11	12	16	13
IIA	SOL	3A	TR2	NONE	DEN	67	93	113	98	97	81	0	0	0	0	0
IIA	SOL	3A	TR3	NONE	DEN	10	0	0	0	0	0	0	0			0

Table 5.2.3.2 LPUE (g/kWd) of cod (COD), *Nephrops* (NEP), plaice (PLE) and sole (SOL) by regulated gear, country and derogation in Kattegat 2003-2013. The derogation CPart11/IIa83b is not included in the TR2 LPUE, since it is considered an unregulated gear.

ANNEX	SPECIES	REG.AREA	REG.GEAR	SPECON	COUNTRY	LPUE 2003	LPUE 2004	LPUE 2005	LPUE 2006	LPUE 2007	LPUE 2008	LPUE 2009	LPUE 2010	LPUE 2011	LPUE 2012	LPUE 2013	LPUE 2011-2013
IIA	COD	3A	GN1	NONE	SWE	295	57	208	271	134	336	60	0		0	0	0
IIA	COD	3A	GN1	NONE	GER	0	140	37	130	101	32	0	0	0		0	0
IIA	COD	3A	GN1	NONE	DEN	455	296	186	154	317	532	137	155	65	51	73	64
IIA	COD	3A	GT1	NONE	DEN	463	608	71	81	168	0	0	0	0	0	0	0
IIA	COD	3A	GT1	NONE	SWE	548	533	390	52	59	103	57	0	0	0	0	0
IIA	COD	3A	LL1	NONE	DEN	1235	649	0		0	0	0	0				0
IIA	COD	3A	LL1	NONE	SWE	2991		94	109	0	555	0	0	0	0	0	0
IIA	COD	3A	TR1	NONE	DEN	759	365	427	198	287	166	169	44	21	20	0	13
IIA	COD	3A	TR1	NONE	SWE	1240	2315	965	1550	1566	104	143	0	0	0	0	0
IIA	COD	3A	TR1	NONE	GER	0	2510	1805	950	181	0	0	0	0	0	0	0
IIA	COD	3A	TR2	CPART13B	GER	0	0	0	0	0	0	0	0	0	0	0	0
IIA	COD	3A	TR2	CPART13C	DEN	0	0	0	0	0	0	0	36	40	22	21	27
IIA	COD	3A	TR2	NONE	DEN	270	190	141	159	129	88	40	0	0	0	0	0
IIA	COD	3A	TR2	NONE	GER	56	94	0	97	57	26	0	0	105	0	0	68
IIA	COD	3A	TR2	NONE	SWE	500	386	305	264	190	126	80	95	136	96	73	103
IIA	COD	3A	TR3	NONE	DEN	78	19	14	8	3	0	0		0	14	0	9
IIA	NEP	3A	GN1	NONE	DEN	0	0	0	0	0	0	0	0	0		0	0
IIA	NEP	3A	GN1	NONE	SWE					0	0						0
IIA	NEP	3A	GN1	NONE	GER	0											0
IIA	NEP	3A	GT1	NONE	SWE	0			0	0	0	0	0				0
IIA	NEP	3A	GT1	NONE	DEN	77	0	35		0		45		88		0	44
IIA	NEP	3A	LL1	NONE	DEN			0		0	0	0	0		0		0
IIA	NEP	3A	TR1	NONE	DEN	40	31	25	31	135	243	129	474	431	584	530	533
IIA	NEP	3A	TR1	NONE	SWE	45	0	40	0	202	434	573	220	0	0	0	0
IIA	NEP	3A	TR1	NONE	GER					0	0	0	0	0	1392	905	1293
IIA	NEP	3A	TR2	CPART13B	GER	0	0	0	0	0	0	0	799	1196	0	0	1196
IIA	NEP	3A	TR2	CPART13C	DEN	0	0	0	0	0	0	0	707	543	605	562	571
IIA	NEP	3A	TR2	NONE	GER	334	282	266	582	368	491	753	1027	948	1512	756	1015
IIA	NEP	3A	TR2	NONE	DEN	376	436	459	397	585	640	639	0	0	0	0	0
IIA	NEP	3A	TR2	NONE	SWE	205	257	272	277	370	421	461	429	339	419	340	366
IIA	NEP	3A	TR3	NONE	DEN	11	0	0	6	3	7	0	0	39		0	9
IIA	PLE	3A	GN1	NONE	GER	220	140	186	208	151	95	130	102	93	84	122	96
IIA	PLE	3A	GN1	NONE	DEN	585	940	550	607	757	820	225	248	130	404	327	246
IIA	PLE	3A	GN1	NONE	SWE	197	396	104	136	268	122	181	93	73	57	134	82
IIA	PLE	3A	GT1	NONE	DEN	309	947	602	1010	587	936	178	299	88	0	340	133
IIA	PLE	3A	GT1	NONE	SWE	1956	1866	1481	1043	615	991	171	263	198	134	362	251
IIA	PLE	3A	LL1	NONE	DEN	0		0		0	0	0	0				0
IIA	PLE	3A	TR1	NONE	GER	0	0	401	1140	362	0	0	0	0	0	0	0
IIA	PLE	3A	TR1	NONE	DEN	1309	1716	1984	2489	2405	1780	1846	815	1253	208	63	380
IIA	PLE	3A	TR1	NONE	SWE	158	132	40	194	152	69	143	0	0	0	0	0
IIA	PLE	3A	TR2	CPART13B	GER	0	0	0	0	0	0	0	100	0	0	0	0
IIA	PLE	3A	TR2	CPART13C	DEN	0	0	0	0	0	0	0	108	101	61	77	79
IIA	PLE	3A	TR2	NONE	DEN	412	230	170	250	232	184	115	0	0	0	0	0
IIA	PLE	3A	TR2	NONE	GER	83	94	133	97	57	52	100	0	0	0	0	0
IIA	PLE	3A	TR2	NONE	SWE	129	89	65	122	110	90	92	123	52	46	77	58
IIA	PLE	3A	TR3	NONE	DEN	9	2	0	3	0	0	0	0	0	0	0	0
IIA	SOL	3A	GN1	NONE	SWE	0		0	0	0	0	302	248	255	228	314	259
IIA	SOL	3A	GN1	NONE	DEN	97	152	589	578	427	471	525	480	519	404	508	492
IIA	SOL	3A	GN1	NONE	GER	1029	1050	1230	1117	831	855	907	973	1396	843	980	1156
IIA	SOL	3A	GT1	NONE	SWE	157	178	234	313	263	342	400	564	635	535	616	605
IIA	SOL	3A	GT1	NONE	DEN	77	135	496	444	503	510	357	448	351	189	170	266
IIA	SOL	3A	LL1	NONE	DEN			0		0	0	0	0		0		0
IIA	SOL	3A	TR1	NONE	DEN	20	21	49	89	49	38	20	15	21	40	13	26
IIA	SOL	3A	TR1	NONE	GER	0	0	0	0	0	0	0	0	0	0	0	0
IIA	SOL	3A	TR1	NONE	SWE	0	0	0	0	0	0	0	0	0	0	0	0
IIA	SOL	3A	TR2	CPART13B	GER	0	0	0	0	0	0	0	50	0	0	0	0
IIA	SOL	3A	TR2	CPART13C	DEN	0	0	0	0	0	0	0	55	77	46	35	52
IIA	SOL	3A	TR2	NONE	SWE	4	10	15	15	15	7	9	18	11	0	12	8
IIA	SOL	3A	TR2	NONE	GER	111	94	0	0	57	103	50	0	0	0	0	0
IIA	SOL	3A	TR2	NONE	DEN	34	49	92	113	97	95	75	0	0	0	0	0
IIA	SOL	3A	TR3	NONE	DEN	2	0	0	0	0	0	0	0	0			0

5.2.4 ToR 2 Rank regulated gear groups on the basis of catches expressed both in weight and in number of cod

STECF EWG 14-13 presents the gear groups ranked to their relative importance of catches and landings of cod, *Nephrops*, plaice and sole in 2013. The TR2 category dominates the fishery of all listed species in recent years.

Table 5.2.4.1 Ranked regulated gear categories according to the proportional catches of cod (COD), *Nephrops* (NEP), plaice (PLE) and sole (SOL) 2004-2013. Note that the derogations CPart11 and IIA83b are not included in the TR2 category below, since they are considered unregulated.

ANNEX	REG.AREA	SPECIES	REG.GEAR	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel	2011 Rel	2012 Rel	2013 Rel	Cumul. 2013
IIA	3A	COD	TR2	0.81	0.86	0.93	0.84	0.81	0.57	0.93	0.87	0.96	0.98	1.00
IIA	3A	COD	GN1	0.09	0.02	0.02	0.03	0.09	0.36	0.04	0.11	0.00	0.01	0.02
IIA	3A	COD	TR1	0.06	0.11	0.05	0.13	0.08	0.06	0.02	0.02	0.03	0.01	0.01
IIA	3A	COD	GT1	0.01	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00
IIA	3A	COD	TR3	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IIA	3A	COD	LL1	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00
IIA	3A	NEP	TR2	1.00	0.99	0.99	0.98	0.96	0.99	0.98	0.98	0.96	0.97	1.00
IIA	3A	NEP	TR1	0.00	0.00	0.01	0.02	0.04	0.01	0.02	0.01	0.04	0.03	0.03
IIA	3A	NEP	GN1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IIA	3A	NEP	TR3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IIA	3A	NEP	GT1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IIA	3A	NEP	LL1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IIA	3A	PLE	TR2	0.60	0.55	0.58	0.58	0.56	0.75	0.91	0.90	0.83	0.95	1.00
IIA	3A	PLE	TR1	0.23	0.38	0.36	0.38	0.37	0.22	0.06	0.06	0.13	0.02	0.05
IIA	3A	PLE	GN1	0.14	0.05	0.03	0.03	0.04	0.03	0.02	0.02	0.03	0.01	0.03
IIA	3A	PLE	GT1	0.03	0.02	0.02	0.01	0.03	0.01	0.01	0.01	0.01	0.01	0.01
IIA	3A	PLE	TR3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IIA	3A	PLE	LL1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IIA	3A	SOL	TR2	0.24	0.65	0.67	0.71	0.74	0.67	0.69	0.68	0.73	0.60	1.00
IIA	3A	SOL	GN1	0.69	0.28	0.25	0.21	0.19	0.27	0.22	0.24	0.18	0.25	0.40
IIA	3A	SOL	GT1	0.06	0.04	0.04	0.05	0.05	0.05	0.08	0.08	0.06	0.14	0.15
IIA	3A	SOL	TR1	0.01	0.02	0.04	0.03	0.02	0.01	0.01	0.00	0.03	0.01	0.01
IIA	3A	SOL	LL1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IIA	3A	SOL	TR3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 5.2.4.2 Ranked regulated gear categories according to the proportional landings of cod (COD), *Nephrops* (NEP), plaice (PLE) and sole (SOL) 2004-2013. Note that the derogations CPart11 and IIA83b are not included in the TR2 category in this table, since they are considered unregulated.

ANNEX	REG.GEAR	SPECIES	REG.GEAR	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel	2011 Rel	2012 Rel	2013 Rel	Cumul. 2013
IIA	3A	COD	TR2	0.85	0.80	0.88	0.79	0.76	0.79	0.88	0.96	0.96	0.95	1.00
IIA	3A	COD	GN1	0.03	0.03	0.04	0.05	0.12	0.09	0.08	0.02	0.01	0.04	0.05
IIA	3A	COD	TR1	0.10	0.15	0.07	0.15	0.08	0.11	0.03	0.01	0.03	0.01	0.01
IIA	3A	COD	GT1	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00
IIA	3A	COD	TR3	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
IIA	3A	COD	LL1	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
IIA	3A	NEP	TR2	1.00	0.99	0.99	0.98	0.96	0.99	0.98	0.98	0.96	0.97	1.00
IIA	3A	NEP	TR1	0.00	0.00	0.00	0.02	0.03	0.01	0.02	0.02	0.04	0.03	0.03
IIA	3A	NEP	GN1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IIA	3A	NEP	TR3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IIA	3A	NEP	GT1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IIA	3A	NEP	LL1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IIA	3A	PLE	TR2	0.62	0.49	0.54	0.52	0.56	0.57	0.77	0.74	0.81	0.86	1.00
IIA	3A	PLE	GN1	0.09	0.08	0.06	0.06	0.07	0.05	0.06	0.04	0.06	0.06	0.14
IIA	3A	PLE	GT1	0.03	0.04	0.03	0.03	0.05	0.01	0.03	0.02	0.01	0.06	0.08
IIA	3A	PLE	TR1	0.26	0.40	0.37	0.40	0.33	0.36	0.15	0.21	0.12	0.02	0.02
IIA	3A	PLE	TR3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IIA	3A	PLE	LL1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IIA	3A	SOL	TR2	0.80	0.65	0.66	0.71	0.73	0.66	0.63	0.66	0.72	0.61	1.00
IIA	3A	SOL	GN1	0.16	0.28	0.25	0.21	0.19	0.28	0.26	0.25	0.19	0.23	0.39
IIA	3A	SOL	GT1	0.02	0.04	0.04	0.05	0.05	0.06	0.10	0.08	0.06	0.15	0.16
IIA	3A	SOL	TR1	0.02	0.03	0.04	0.03	0.02	0.01	0.01	0.00	0.03	0.01	0.01
IIA	3A	SOL	LL1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IIA	3A	SOL	TR3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.2.5 ToR 3 Information on small boats (<10m)

5.2.5.1 Fishing effort of small boats by Member State

Vessels <10m LOA are exempted from the effort regulation in Kattegat with regard to the cod plan. Table 5.2.5.1.1 shows the nominal effort (kW*days at sea) of vessels <10m LOA in Kattegat. In 2013 the nominal effort deployed by small vessels constituted 13% of the total effort in the area. The Danish effort for this group of vessels has decreased in general during the time series, from 459 521 kW*days in 2003 to 265 101 kW*days in 2013. The Swedish total effort of small vessels has been fairly stable since 2009, accounting for about half of the effort deployed by small vessels in the area. However, the effort of Swedish vessels <10m fishing with TR2 gears has increased since 2009, from 4 801kWd to 55 459kWd in 2013. The German effort in this vessel category is insignificant. It should be noted that effort data for vessels <10m is more uncertain than for larger vessels. This is due to the fact that the majority of small vessels do not carry a logbook and the effort data has to be acquired from alternative data sources, such as monthly journals or sale slips.

Table 5.2.5.1.1 Nominal effort (kW*days at sea) deployed by vessels <10m LOA in Kattegat 2003-2013. Swedish effort data for vessels <10m LOA is not considered reliable before 2009 and are excluded from the table.

Gear	SPECON	country	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Rel.2003	Rel. 2009	Rel.2012
DREDGE	none	DEN							243						0	
GN1	none	DEN	33319	29006	52205	65655	47184	62330	46955	53325	49306	28118	24267	0.73	0.52	0.86
GN1	none	GER				378										
GN1	none	SWE							62122	93134	45170	65829	64817		1.04	0.98
GT1	none	DEN	7919	1335	8914	16783	8930	5112	5023	5609	2993	1810	2854	0.36	0.57	1.58
GT1	none	SWE							38574	41407	25114	30193	28202		0.73	0.93
LL1	none	DEN	118		201	692	256		16					0	0	
LL1	none	SWE								209	55	0				
none	none	DEN	413225	388817	381605	345393	289656	243566	238901	212724	234535	182939	208486	0.50	0.87	1.14
none	none	SWE							37960	21438	21887	26061	17658		0.47	0.68
OTTER	none	DEN			406	1072	96	672	192			576	192		1	0.33
OTTER	none	SWE							128				3485		27.23	
PEL_SEINE	none	SWE														
PEL_TRAWL	none	DEN			336								708			
POTS	none	DEN			6611	7950	6942	6702	5308	4503	4506	5255	4765		0.90	0.91
POTS	none	SWE							134604	182519	105753	128945	126615		0.94	0.98
TR1	none	DEN	510		3210	1410	5350	80	276		910	294		0	0	0
TR1	none	SWE							828	966	1242	4867	1380		1.67	0.28
TR2	CPART11	SWE							2891	7932	4607	3189	1643		0.57	0.52
TR2	CPART13C	DEN								45373	27981	15317	23829			1.56
TR2	IIA83B	SWE														
TR2	none	DEN	4430	7672	9307	28840	28572	33945	30304					0	0	
TR2	none	SWE							4801	17516	36719	54523	55459		11.55	1.02
TR3	none	DEN			23		23	164	34						0	
Tot. kWd DEN and GER			459521	426830	462818	468173	387009	352571	327252	321534	320231	234309	265101	0.58	0.81	1.13
Tot. kWd SWE									281908	365121	240547	313607	299259		1.06	0.95
Total kWd all countries									609160	686655	560778	547916	564360		0.93	1.03

The effort deployed in Gross tonnage days (GTdays), number of vessels and fishing capacity in kW by vessels <10m LOA are not described in this report but can be found on the STECF EWG 14-13 website under the Final Report section: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1413:

5.2.5.2 Catches (landings and discards) of cod and associated species by small boats by Member State

Landings of cod, *Nephrops*, plaice and sole by vessels <10m LOA in Kattegat are presented in Table 5.2.5.2.1 and the percentage of the total landings of the same species in Table 5.2.4.2.2. The landings by small vessels show largely the same pattern as the total landings and the percentage portions have remained fairly stable through the time series.

Table 5.2.5.2.1 Landings (t) of cod (COD), *Nephrops* (NEP), plaice (PLE) and sole (SOL) by vessels <10m LOA, 2004-2013.

SPECIES	GEAR	2004 L	2005 L	2006 L	2007 L	2008 L	2009 L	2010 L	2011 L	2012 L	2013 L
COD	GN1	17.0	24.0	31.6	22.0	7.9	5.4	7.6	6.7	3.5	1.1
COD	GT1	0.2	0.9	1.8	1.1	1.7	3.7	3.3	1.9	1.0	0
COD	LL1	0.5	1.9	6.0	7.5	1.1	0.2	0	0	0	0
COD	NONE	129.8	103.1	117.6	44.1	26.4	20.2	10.7	8.1	6.7	8.0
COD	OTTER	0	0	0	0	0	0	0	0	0	0
COD	PEL_TRAWL	0	0.1	0	0	0	0	0	0	0	0
COD	POTS	0	0.2	0.1	0.1	0.1	0	0.1	0	0.1	0
COD	TR1	0	0.3	2.2	1.6	0.2	0.5	0	0	1.0	0.2
COD	TR2	1.9	0.8	3.6	2.4	1.4	0.5	0.9	1.2	1.2	1.8
COD	TR3	0	0	0	0	0	0	0	0	0	0
COD total		149.4	131.3	163.0	78.9	38.8	30.6	22.6	18.0	13.5	11.1
NEP	GN1	0	0.1	0.2	0.1	0	0	0	0	0	0
NEP	GT1	0	0	0	0	0	0	0	0	0	0
NEP	NONE	11.1	7.8	3.6	5.3	5.8	9.0	8.5	25.7	33.9	64.2
NEP	OTTER	0	0	0	0	0	0	0	0	0	0
NEP	PEL_TRAWL	0	0	0	0	0	0	0	0	0	0
NEP	POTS	3.9	4.4	4.5	4.5	5.6	8.4	11.1	11.4	24.9	21.9
NEP	TR1	0	0	0	0.1	0	0.1	0.2	0.3	1.4	0.3
NEP	TR2	1.6	3.9	4.8	9.0	9.9	6.4	30.2	17.4	24.6	31.3
NEP	TR3	0	0	0	0	0	0	0	0	0	0
NEP total		16.6	16.2	13.1	19.1	21.2	23.9	50.1	54.7	84.8	117.9
PLE	DREDGE	0	0	0	0	0	0.2	0	0	0	0
PLE	GN1	31.4	31.9	43.2	46.7	26.6	19.5	14.6	5.4	5.3	10.2
PLE	GT1	3.1	7.5	12.2	13.4	9.8	24.7	12.9	14.0	8.8	20.4
PLE	LL1	0	0	0	0	0	0	0	0	0	0
PLE	NONE	253.8	190.1	213.9	194.9	124.0	93.5	69.0	35.2	19.1	42.5
PLE	OTTER	0	0	0.1	0	0	0	0	0	0	0
PLE	PEL_TRAWL	0	0.1	0	0	0	0	0	0	0	0
PLE	POTS	0	0	0	0	0	0	0	0	0	0
PLE	TR1	0	1.6	1.2	11.4	0	0.1	0	7.0	2.7	0
PLE	TR2	15.1	1.9	11.2	16.8	10.9	14.5	15.4	10.6	2.9	0.9
PLE total		303.4	233.1	281.8	283.2	171.3	152.4	112.0	72.1	38.7	74.0
SOL	DREDGE	0	0	0	0	0	0	0	0	0	0
SOL	GN1	4.3	25.1	23.7	15.4	19.4	17.3	24.1	21.5	13.6	15.4
SOL	GT1	0.1	6.6	10.3	10.4	9.7	11.7	9.7	8.1	3.5	12.9
SOL	LL1	0	0	0	0.1	0	0	0	0	0	0
SOL	NONE	73.4	176.6	153.5	106.8	92.6	90.6	79.6	53.8	30.7	49.4
SOL	OTTER	0	0	0	0	0	0	0	0	0	0
SOL	PEL_TRAWL	0	0.1	0	0	0	0	0	0	0	0
SOL	POTS	0	0.1	0.7	0.3	0.2	0.1	0	0	0	0
SOL	TR1	0	1.9	0.4	0.6	0.1	0	0	0	0	0
SOL	TR2	0.8	2.2	7.4	9.2	9.2	11.0	13.4	8.6	1.2	0.7
SOL	TR3	0	0	0	0	0	0	0	0	0	0
SOL total		78.6	212.5	196.0	142.8	131.2	130.8	126.8	92.2	49.0	78.4

Table 5.2.5.2.2 Percentage of total landings of cod (COD), *Nephrops* (NEP), plaice (PLE) and sole (SOL) by vessels <10m LOA 2004-2013 in Kattegat.

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
COD	11%	14%	18%	12%	9%	16%	15%	12%	14%	12%
NEP	1%	1%	1%	1%	1%	1%	2%	4%	4%	7%
PLE	19%	19%	18%	20%	16%	23%	22%	20%	17%	25%
SOL	28%	35%	32%	32%	31%	33%	36%	28%	25%	38%

5.2.6 ToR 4 Evaluation of fully documented fisheries FDF

There are no FDF fisheries in Kattegat.

5.2.7 ToR 5 Spatio-temporal patterns in effective effort by fisheries

Figures 5.2.7.1 to 5.2.7.3 show the effective effort in fishing hours carried out by the gear categories TR2, TR1 and GN1 respectively.

It should be noted that Kattegat is a rather small management area to find any changes in the pattern of the distribution of effort between the gears using statistical rectangles. A smaller grid would be required in order to pick up any spatial changes in this area. However Figure 5.2.7.1.2 shows a different spatial pattern in 2013 between vessels regulated for effort and those exempt under CPart11 (both using TR2 category gear).

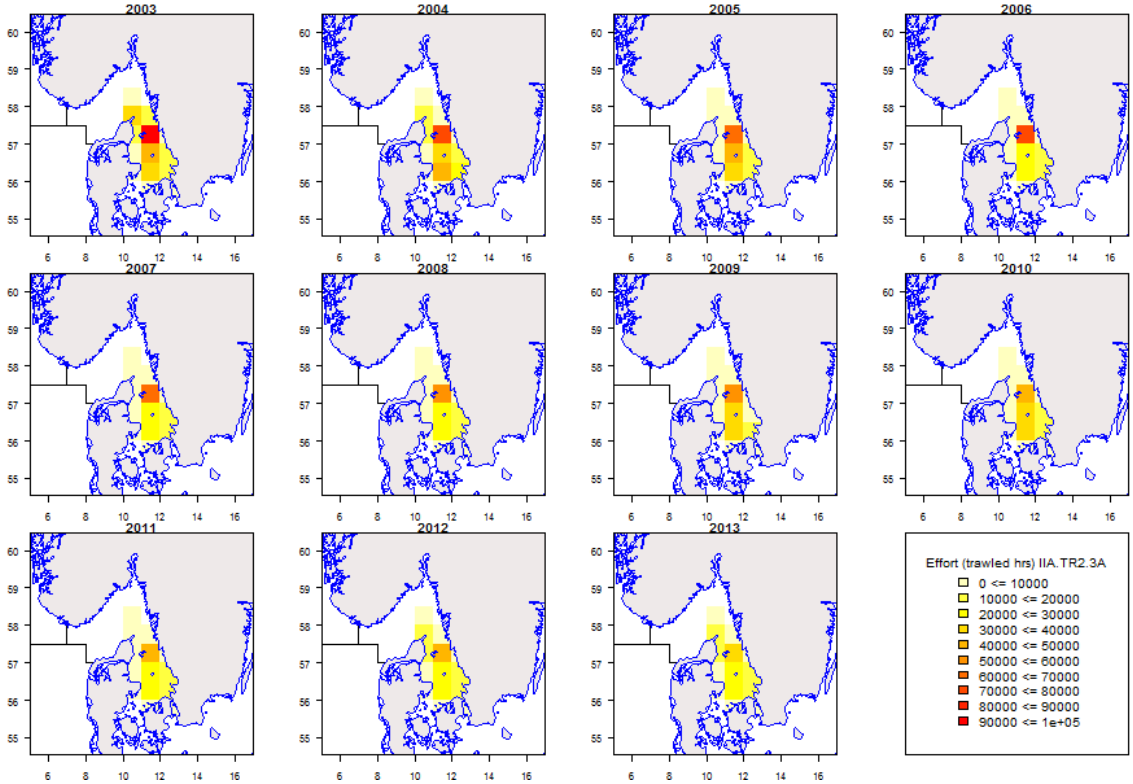


Figure 5.2.7.1.1 Spatial distribution of effective effort (fishing hours) for the gear category TR2 including the unregulated CPart11 and IIA83b in Kattegat 2003-2013.

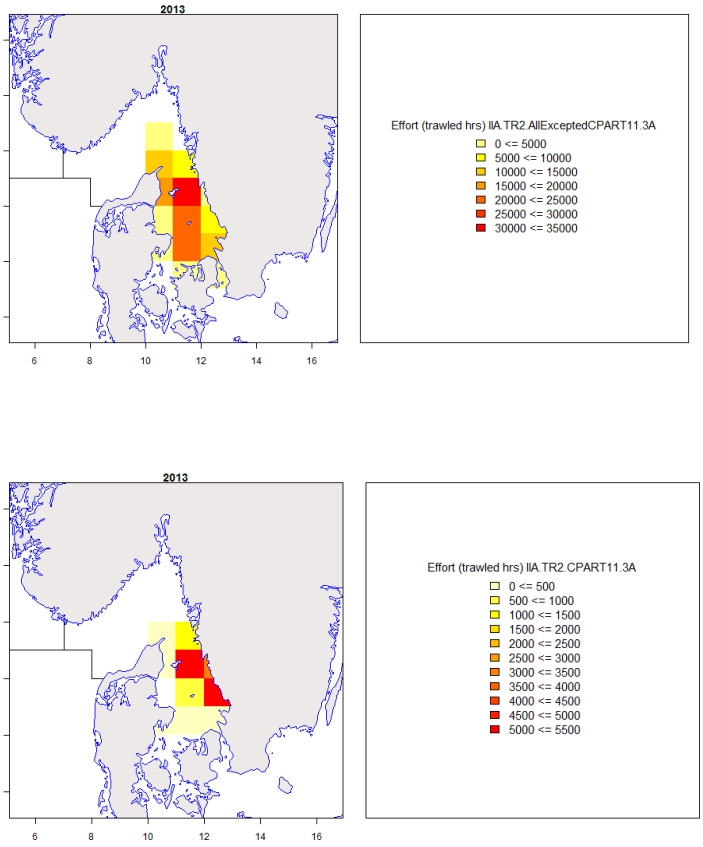


Figure 5.2.7.1.2. Top: Spatial distribution of effective effort (fishing hours) 2013 in Kattegat for the gear category TR2, not including the derogation CPart11. Bottom: Spatial distribution of effective effort (fishing hours) 2013 in Kattegat for the derogation CPart11. Note the different scale in the right panels.

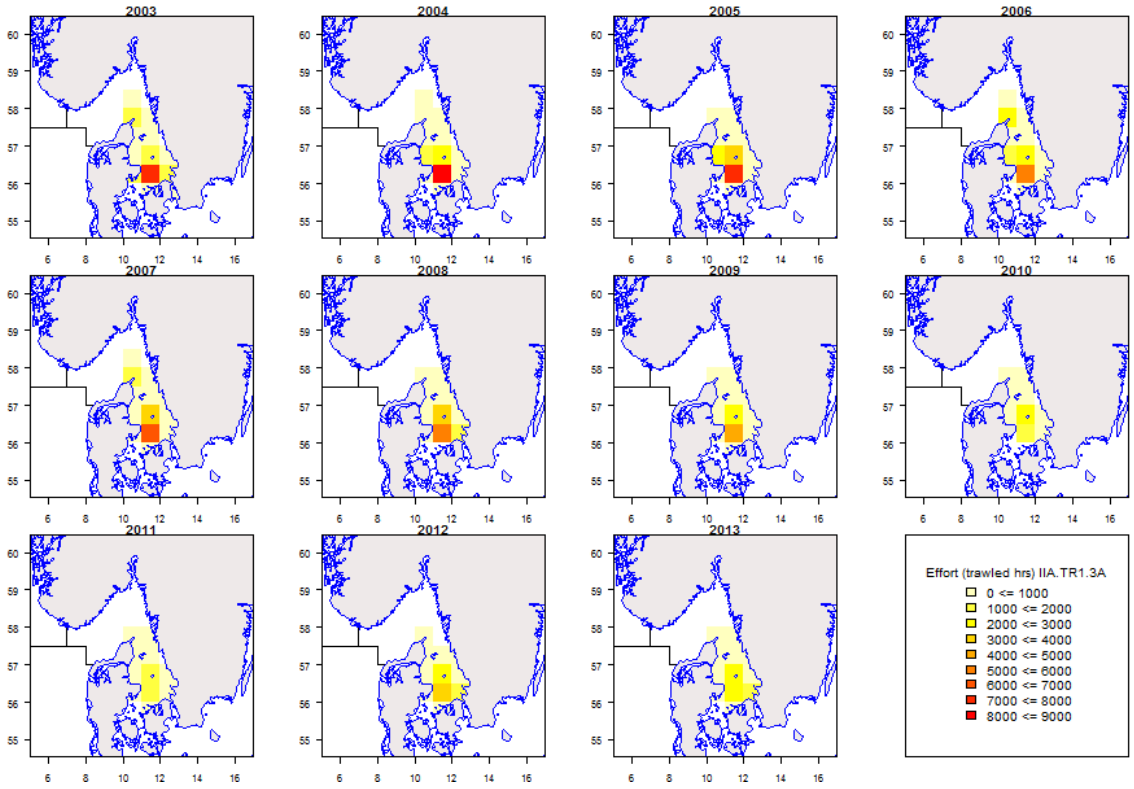


Figure 5.2.7.2 Spatial distribution of effective effort (fishing hours) for the gear category TR1 in Kattegat 2003-2013.

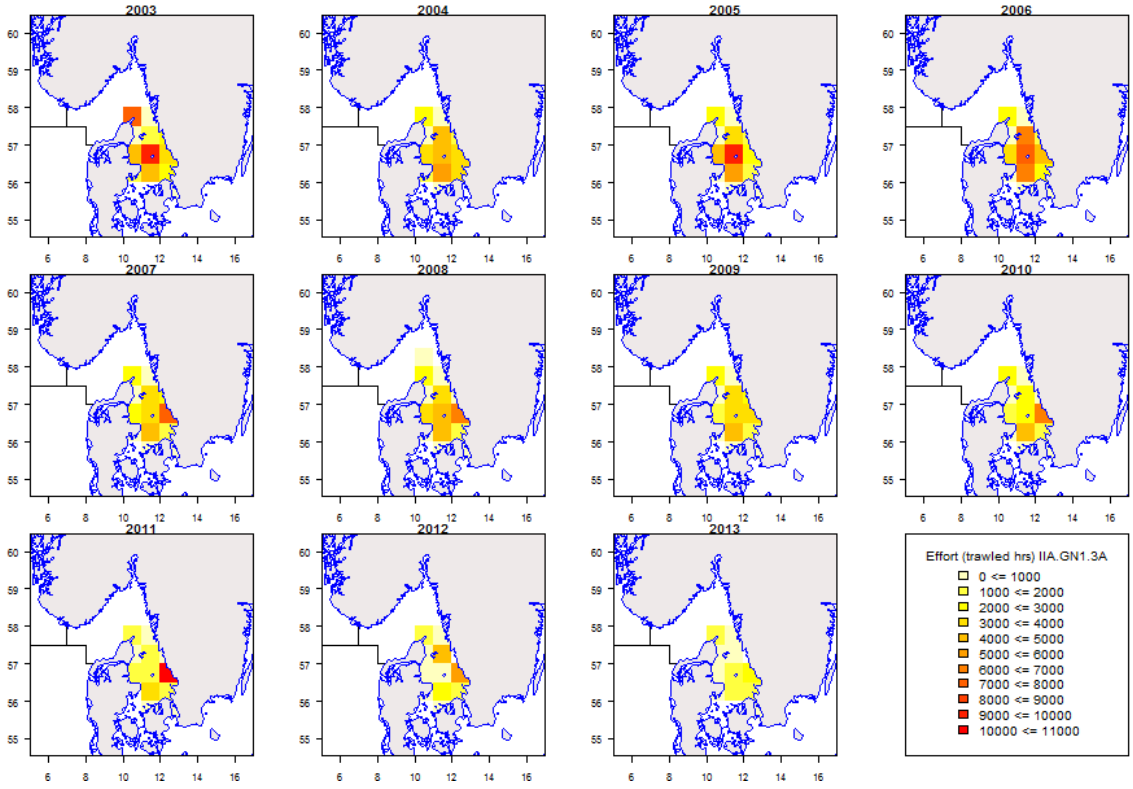


Figure 5.2.7.3. Spatial distribution of effective effort (fishing hours) for the gear category GN1 in Kattegat 2003-2013.

5.2.8 ToR 6 Remarks on quality of catches and discard estimates

The STECF EWG 14-06 expresses overall high confidence in the effort data and results.

5.2.9 ToR 7 Estimation of conversion factors to be applied for effort transfers between regulated gear groups

STECF EWG 14-13 presents the estimated cod CPUE and respective effort transfer factors between donor and receiving regulated gear groups in Table 5.2.8.1

Table 5.2.8.1 Cod CPUE and respective effort transfer factors between donor and receiving regulated gear groups based on averages 2011-2013. Red cells are indicated to be imprecise due to lack of adequate discard information. Yellow cells indicate sufficient sampling and green cells good sampling information. The transfer factor between TR1 (donor gear) and TR2 (receiving gear) is believed to be slightly underestimated since it is based on a TR2 CPUE with German cod discards still included (see section 2.2.1). If the German discards are removed from the calculation, the transfer factor TR1/TR2 would be 0.509.

Kattegat

	donor gear	receiving gear						2011-2013		
		GN1	GT1	LL1	TR1	TR2	TR3	CPUE	LPUE	
3a	GN1		1	1	1	1	1	200	27	factor = CPUE donor/CPUE receiving
3a	GT1	0.005		1	0.017	0.008	0.111	1	1	if factor > 1 then
3a	LL1	0.005	1		0.017	0.008	0.111	1	1	factor = 1
3a	TR1	0.295	1	1		0.48	1	59	13	
3a	TR2	0.615	1	1	1		1	123	36	if CPUE=0 or LPUE = 0 then
3a	TR3	0.045	1	1	0.153	0.073		9	9	CPUE=1 or LPUE=1

5.2.10 ToR 8 Correlation between partial cod mortality and fishing effort by Member State and fisheries

STECF EWG 14-06 noted that ICES did not provide an analytical assessment of cod in the Kattegat in 2013. STECF EWG 14-06 is therefore unable to deal with the ToR 8.

5.2.11 ToR 9 Trends in fishing mortality and fishing effort by Member State and fisheries with regards to the cod plan (R (EC) No 1342/2008) provisions, in particular with regard to Article 13

STECF EWG 14-13 noted that ICES did not provide an analytical assessment of cod in the Kattegat in 2013. STECF EWG 14-13 is therefore unable to deal with the ToR 9.

STECF EWG 14-13 is therefore also unable to estimate the fishing effort commensurate with the fishing mortality level to be achieved in 2013 and to estimate any excessive amount of effort.

5.3 Skagerrak, North Sea and II EU Eastern Channel effort regime evaluation in the context of Annex IIA to Council Regulation (EC) No 57/2011)

5.3.1 ToR 1.a Fishing effort in kWdays, GTdays, kW and number of vessels by Member State and fisheries

In 2014, data were made available at the sub area level (3b1= Skagerrak, 3b2 = North Sea and 2 EU, 3b3 = Eastern Channel), allowing a better understanding of the general trends. Most plots and figures within this report have been now provided by sub-area accordingly, but in case of more details are needed, all information are available in the relevant digital Appendixes:

http://stecf.jrc.ec.europa.eu/web/stecf/ewg1413

5.3.1.1 Fishing effort of regulated gears, management area 3b

Catch and effort data including the special conditions in force since 2009 (CPart11 and CPart13) have been provided by all Member States with significant fishing activity in this area. Additionally, distinction is now provided across the various CPart13 specifications (A, B, or C). The data are considered to represent a complete account of fishing effort by regulated gears in the area as reported by national administrations. As a result, any inconsistencies or problems in the data arise from the reported data rather than the subsequent compilation by the working group.

Data are given from 2004 in the tables to ease readability. Because of obvious inconsistencies in the French 2002 data, times series figures are displayed from 2003 only. As noted in previous years, the French 2009 figures should still be regarded as preliminary; they have not been revised yet.

In 2013, the group pursued its investigation of the consistencies between data submitted to STECF and data submitted to ICES WGMIXFISH for the North Sea, the Skagerrak and the Eastern English Channel (ICES, 2013). The group noted that the 2011 effort data appeared very consistent between both data sources (see chapter 4.12), with only a few deviations. There is an ongoing collaboration between both groups in order to further check and improve these estimates and reduce the risk of different sources providing different figures.

Information on nominal effort (kW days at sea) regulated in the Skagerrak, North Sea (incl. 2EU) and the Eastern Channel are listed by country and by area in Table 5.3.1.1 for the current cod plan categories. Additional information including GTdays and numbers of vessels or the extended time series can be found on the STECF website and in the Appendices.

Information related to the Fully Documented Fishery (FDF) is dealt with specifically in section 5.3.8 further below.

Overall trends in nominal aggregated effort in kilowatt-days by gear category and sub-areas are given in Tables 5.3.1.2 and shown in Figures 5.3.1.1 (by gear type) and 5.3.1.2 (by mesh size grouping). An overview on effort from unregulated gears by subarea is given in table 5.3.1.3 as well as the share of

regulated gear effort in total effort in table 5.3.1.4. A more detailed analysis of unregulated gears is presented in section 5.3.1.2.

The North Sea is the main fishing area (79% of the total 2013 regulated effort in area 3b), followed by The English Channel (15%), while the Skagerrak represents a smaller component (6%).

In all three sub areas, regulated effort has decreased since 2003. Overall, the share of regulated gears to total effort in area 3b has also decreased regularly, down to 61% in 2013 on average (but no more than 45% in Skagerrak).

In area 3b2 (North Sea), regulated effort is equally shared between beam trawls and demersal trawls/seines (52% and 43% of total 2013 regulated effort respectively). Small mesh beam trawling (80-119 mm, BT2) and demersal trawls/seines with larger mesh sizes (>=100mm, TR1) are the predominant fisheries. There is an increasing trend for large meshed beam trawls (BT1) in recent years. In the Eastern Channel, demersal trawls/seines are also the main gears (63% of the 2013 regulated effort in the area, mainly smaller mesh size 70-99mm TR2), but with beam trawls and passive gears representing important fisheries as well (20% and 16% of the 2013 regulated effort respectively). The main gears in management area 3b1 (Skagerrak) are demersal trawls/seines (86% of the 2013 regulated effort), with a predominance of TR2. However, there was a strong increase in Danish TR3 effort in 2013 compared to 2012.

The overall effort by demersal trawls / seines has shown a reduction since 2003, especially in the North Sea. The effort by larger mesh (TR1) had remained relatively stable over the previous cod plan (2004-2009) but has been declining since the full implementation of the new cod plan in 2010. In 2013 an increase can be observed between 2012 and 2013. A part of the TR1 decrease and increase observed in 2012 and 2013 (-14% between 2011 and 2012; +8% between 2012 and 2013) is linked to the shift of the French saithe fishery into unregulated Article11 for 2012 and the shift back into Article13 in 2013. However, also the increasing number of FDF vessels without effort management contributes to the increase in 2013 (see section 5.3.7.1)

In the Skagerrak, TR1 trawling effort has been slightly more stable since 2007 but TR2 effort decreased substantially. In the Eastern Channel TR2 effort has remained constant between 2010 and 2012 but decreased in 2013.

It must be kept in mind that the current grouping covers many different fisheries. TR2 in particular gathers different fisheries e.g. *Nephrops* trawling, mainly in the Northern North Sea, and whiting trawling in the south-western North Sea, and these local fisheries may follow different dynamics. Similarly, TR1 fisheries cover a mixed whitefish fishery, a saithe-targeted fishery as well as a plaice targeted fishery in the southern North Sea.

For the whole area 3b, 66% and 32% of the regulated effort (i.e. excluding article 11) by TR1 and TR2 is under Article 13. Many English fisheries other than demersal trawls/Seines have been reported under Article13B, i.e. catching less than 5% cod, both in the North Sea and in the Eastern Channel.

There are a number of Article 13 derogations used for trawls/seines fisheries (both TR1 and TR2) in the North Sea. Germany, Scotland and England have reported 54%, 100% and 100% of their TR1 effort in Article 13 respectively. UK has also reported 100% of TR2 effort under Article 13.

Article 13C has represented the largest Specon. It is only used by the UK, but is overall operated at fishing effort levels comparable to the “none” specon. The Art13B has been applied by the UK as well, but also by Germany. Article13A has only been reported by Northern Ireland in 2013. There is only a limited use of Article 13 in the Skagerrak (3b1), operated by the German saithe fishery.

As a quality check, STECF routinely compares the data currently submitted with the data submitted during the previous year, as is displayed in table 5.3.1.5. Compared to the data submitted in 2012, updates were only reported by Northern Ireland. While some changes can appear large in the table below, they

usually apply to categories with limited effort, and this does not affect the overall perception of trends from previous years' reports. The updates represent some improvements of the quality of the data submitted, so this year's data are considered more consistent.

Table 5.3.1.1 Area 3b: Trend in regulated nominal effort (kW *days at sea) by Gear group, country and specon, 2004-2013 (the extended time series is available on the STECF website). NB CPArt11 and SPECON IIA83b is accounted for in the *un*regulated gears

REG AREA	REG GEAR	COUNTRY	SPECON	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Rel 04-06	Rel 2012
3B1	BT1	DEN	NONE	478214	320631	277249	329335	78260	42335	52098	59305	123592	165600	0.46	1.34
3B1	BT1	GER	NONE	1986				884							
3B1	BT1	NED	NONE	113976	137531	70311	108445	22570	27415	109513	442		7355	0.07	
3B1	BT1	SCO	NONE			4476									
3B1	BT2	DEN	NONE	49611	38835	50351	103304	36836	29052	3678					
3B1	BT2	GER	NONE	20501											
3B1	BT2	NED	NONE	651750	522477	542233	519000	74615	31846	138751	884				
3B1	GN1	DEN	NONE	347090	322715	294630	283147	321868	371533	327758	306895	242996	272584	0.85	1.12
3B1	GN1	GER	NONE	202	1579	1158	6919	3174	1980	660		17636	18038	18.41	1.02
3B1	GN1	SWE	NONE	127286	89748	76409	58618	96877	101209	67326	70682	76606	70409	0.72	0.92
3B1	GT1	DEN	NONE	2059	2450	9463	236	25240	36891	44205	40159	37525	39309	8.44	1.05
3B1	GT1	SWE	NONE	16206	27824	56771	62309	63022	36250	21260	23899	25752	20387	0.61	0.79
3B1	LL1	DEN	NONE	5620	2501	3130	1814	2255	1173	2481	33199	30454	5368	1.43	0.18
3B1	LL1	SWE	NONE	43165	38665	108455	153999	42453	0		396	660	221	0.00	0.33
3B1	TR1	DEN	NONE	637030	1299770	1276319	1449368	1290895	1285901	1351258	918690	999170	984960	0.92	0.99
3B1	TR1	ENG	CPART13C										940		
3B1	TR1	GER	CPART13B						119193	20700	30300	16063	86886		5.41
3B1	TR1	GER	NONE	193030	178369	260596	304370	189600	132585	82954	64169	82526	93355	0.44	1.13
3B1	TR1	NED	NONE				16547	11576	1369	120821			120512		
3B1	TR1	SCO	CPART13C										369		
3B1	TR1	SCO	NONE			575									
3B1	TR1	SWE	NONE	95348	109502	55251	88670	92874	10554	11528	27124	25524	87624	1.01	3.43
3B1	TR2	DEN	NONE	5514510	3998032	3290591	2359541	2613146	2817250	2759331	2941652	2436599	1890353	0.44	0.78
3B1	TR2	GER	NONE	11891					660	4180	2200		1100		
3B1	TR2	NED	NONE					2942	732	2942					
3B1	TR2	SWE	NONE	1644706	1428840	1450466	1158228	1364854	781107	661331	514449	467823	439799		
3B1	TR3	DEN	NONE	206651	233393	71910	37373	17405	18494	11401	1145	3621	132609	0.78	36.62
3B1	TR3	SWE	NONE	3330	1564	588	919			1986				0.00	
3B2	BT1	BEL	NONE	1439951	1509759	1333012	1320169	984056	575501	535636	671368	963867	1198066	0.84	1.24
3B2	BT1	DEN	NONE	887830	996227	511642	527282	370939	366679	513056	373757	317294	288845	0.36	0.91
3B2	BT1	ENG	CPART13B							202685	169873	384590	575558		1.50
3B2	BT1	ENG	NONE	671130	618160	1321240	305837	228530	265710			40284			
3B2	BT1	GER	NONE	29712	2128	53986	30297	16790		884	1535	2793	65906	2.30	23.60
3B2	BT1	NED	NONE	700747	719292	1528652	720068	370417	412420	378796	308516	1090258	1202666	1.22	1.10
3B2	BT1	NIR	NONE	543305	36825										
3B2	BT1	SCO	NONE	694716	730810	598616	349914	68568	53082						
3B2	BT2	BEL	NONE	4294884	3884007	3418751	2707991	3536979	3327143	2480357	1742532	1269319	1178340	0.30	0.93
3B2	BT2	DEN	NONE	38279	62036	42447	1390	2894	49163		440	242	5884	0.12	24.31
3B2	BT2	ENG	CPART13B						47771	2863860	2644958	2412375	2853226		1.18
3B2	BT2	ENG	NONE	3559560	4046341	2974409	3251512	1975399	2444807	401247	96356	79036	28485	0.01	0.36
3B2	BT2	FRA	NONE	94514	75129	66203	103453	88053	88053	40118	67545	57044	56091	0.71	0.98
3B2	BT2	GER	NONE	2060092	2212397	1927398	1590823	1464163	1666322	1801775	1242171	1071896	1290574	0.62	1.20
3B2	BT2	NED	NONE	44669317	44478122	38823660	37931313	27646215	28696410	28510104	25776297	22428296	23823379	0.56	1.06
3B2	BT2	NIR	NONE	47517	16785										
3B2	BT2	SCO	NONE	4608817	4185262	3108933	2790115	1351720	554376	144306		68262	217190	0.05	3.18
3B2	GN1	BEL	NONE	152642	148827	127951	128626	158409	161734	97609	95383	45103	36531	0.26	0.81
3B2	GN1	DEN	NONE	2164307	2031057	1795453	949658	1003603	1050057	1195617	1136118	1080149	1059195	0.53	0.98
3B2	GN1	ENG	CPART13B							111390	152556	102172	177100		1.73
3B2	GN1	ENG	CPART13C										11890		
3B2	GN1	ENG	NONE	359134	308275	308517	180503	70981	175602	74835	73826	61957	28672	0.09	0.46
3B2	GN1	FRA	NONE	64809	46058	31231	61545	47746	46493	2149	7803	3322	1536	0.03	0.46
3B2	GN1	GER	NONE	163463	271624	235427	145714	278008	233164	275364	225797	269836	241938	1.08	0.90
3B2	GN1	NED	NONE	416025	387945	511580	521697	507733	419797	357091	316070	295035	233663	0.53	0.79
3B2	GN1	SCO	NONE	197407	165644	293823	320785	417076	376332	440579	607650	569749	422532	1.93	0.74
3B2	GT1	BEL	NONE				15402	18000	5014	19041	18155	25216	12765		0.51
3B2	GT1	DEN	NONE	244626	237800	175339	98614	100902	158205	130662	182841	321220	483287	2.20	1.50
3B2	GT1	ENG	NONE	1564	5342	11100	3291	12918	12654	17355	12003	5823	12169	2.03	2.09
3B2	GT1	FRA	NONE	793053	813190	1785801	1703889	1010253	1010253	634781	690428	636164	599606	0.53	0.94
3B2	GT1	GER	NONE			1547			15444	1188	924				

Table 5.3.1.1 (ctd)

REG AREA	REG GEAR	COUNTRY	SPECON	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Rel 04-06	Rel 2012
3B2	GT1	NED	NONE					740	26917	37399	21431	29054	7442		0.26
3B2	LL1	BEL	NONE					1768		1660	128	786			
3B2	LL1	DEN	NONE	79773	41626	42159	15924	25347	28769	45576	29388	21089	23908	0.44	1.13
3B2	LL1	ENG	CPART13B						143				29060		
3B2	LL1	ENG	NONE	83137	142602	54974	15752	6164	4318	12052	6253	15449	8401	0.09	0.54
3B2	LL1	FRA	NONE					99602	99602	48552	7644	14962	30000		2.01
3B2	LL1	SCO	NONE	4350		7542	1487	276898	621114	301689	183352	68192	15395	2.59	0.23
3B2	LL1	SWE	NONE	1056	4239	15026	11020	10928	11352	6600	8184	5016			
3B2	LL1	NLD	NONE							142					
3B2	TR1	BEL	NONE	1989			161520	201379	220428	212429	128701	183682	145247	73.03	0.79
3B2	TR1	DEN	NONE	6422756	6405176	6020308	3801069	4034203	3793148	3592389	3664621	3593770	3346858	0.53	0.93
3B2	TR1	ENG	CPART13B						898933	964206	874021	939503	1089822		1.16
3B2	TR1	ENG	CPART13C						1242445	1144923	1254762	931671	1127181		1.21
3B2	TR1	ENG	NONE	1497618	1254880	1823891	1501499	1846925							
3B2	TR1	FRA	CPART13B									29600	2129413		71.94
3B2	TR1	FRA	NONE	2299125	1901534	2675348	2418190	2714146	2622538	1913401	1727371	324	20972	0.01	64.73
3B2	TR1	GER	CPART13B						808679	898007	815730	747693	722448		0.97
3B2	TR1	GER	NONE	1526666	1988209	2176131	1736694	1585192	759368	829604	741965	495051	598769	0.32	1.21
3B2	TR1	IRL	NONE										294		
3B2	TR1	NED	NONE	589170	547564	532260	631492	1400068	1316055	1290080	1173220	1329299	1196661	2.15	0.90
3B2	TR1	NIR	CPART13A									2672	4310		1.61
3B2	TR1	NIR	CPART13B						41944	23326	33246	16573	7062		0.43
3B2	TR1	NIR	CPART13C						14196	6034		2781	16050		5.77
3B2	TR1	NIR	NONE	16948	70710	51951	61460	49104							
3B2	TR1	SCO	CPART13B						692932	955808	810706	36937			
3B2	TR1	SCO	CPART13C						11552644	9486824	9185531	9265940	8340695		0.90
3B2	TR1	SCO	NONE	12684328	12158295	11660764	11022982	12176292							
3B2	TR1	SWE	NONE	375455	387252	237269	269171	333387	245040	196354	189867	190816	270229	0.81	1.42
3B2	TR2	BEL	NONE	519343	343840	366940	298814	425374	506865	476033	435961	484371	467533	1.14	0.97
3B2	TR2	DEN	NONE	2580788	1916695	1405216	1080616	706247	569359	431399	370536	312765	267597	0.14	0.86
3B2	TR2	ENG	CPART13A										2580		
3B2	TR2	ENG	CPART13B						260311	873808	721452	865045	542146		0.63
3B2	TR2	ENG	CPART13C						1376367	482080	524579	267661	236428		0.88
3B2	TR2	ENG	NONE	1705154	1937849	1707774	1621394	1794132							
3B2	TR2	FRA	NONE	1911744	1713917	1558413	1727617	1930459	1924156	1089380	960559	725367	478491	0.28	0.66
3B2	TR2	GBJ	NONE		660										
3B2	TR2	GER	CPART13B						2420	39820	31240	14740	20680		1.40
3B2	TR2	GER	NONE	893439	704404	771597	680681	457259	470754	420345	408157	320809	315656	0.40	0.98
3B2	TR2	IRL	NONE	884											
3B2	TR2	NED	NONE	1496720	1298918	1224916	1384658	1853682	1334665	1231860	1313554	1277297	1181714	0.88	0.93
3B2	TR2	NIR	CPART13A									90338	245268		2.72
3B2	TR2	NIR	CPART13B						65544	161981	207697	109647			
3B2	TR2	NIR	CPART13C						320087	236516	70443	25672	50085		1.95
3B2	TR2	NIR	NONE	12440	221904	532885	758972	409182							
3B2	TR2	SCO	CPART13B						4219929	7467356	5277096	287446			
3B2	TR2	SCO	CPART13C						3796988	490013	1285425	4861297	3539874		0.73
3B2	TR2	SCO	NONE	9485974	9108232	8561812	8678139	8855742							
3B2	TR2	SWE	NONE	2055	1192	1298	2515	1059		0		3930			
3B2	TR3	BEL	NONE					663		1899		1175	6734		
3B2	TR3	DEN	NONE	3026636	2373302	1761200	799803	916558	577813	1063007	336257	477168	824551	0.35	1.73
3B2	TR3	ENG	CPART13B										82		
3B2	TR3	ENG	NONE	7840	3315	6360	1220	492	82	718	621	246	216	0.04	0.88
3B2	TR3	FRA	NONE	1753	7121	1319		2184	2184	13827	2210	1250	85	0.03	0.07
3B2	TR3	GER	NONE			772	884	4410	426				184	0.24	
3B2	TR3	IRL	NONE								2247				
3B2	TR3	NED	NONE	42894	43261	20649	20589	4038	274	31973	23268	25897	50615	1.42	1.95
3B2	TR3	SCO	NONE	5460	2356	116	11896		33117	27524		20706	1567	0.59	0.08
3B3	BT1	BEL	NONE					3578					33947		
3B3	BT1	FRA	NONE									318			
3B3	BT2	BEL	NONE	2422541	2068612	2782454	3183635	2691356	2204585	1907807	1861455	1541411	1629221	0.67	1.06

Table 5.3.1.1 (ctd)

REG AREA	REG GEAR	COUNTRY	SPECON	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Rel 04-06	Rel 2012
3B3	BT2	ENG	CPART13B						108485	123228	101532	144684	108270		0.75
3B3	BT2	ENG	NONE	671323	423730	359264	324577	368882	295714	148793	99461	96917	90608	0.19	0.93
3B3	BT2	FRA	NONE	1278065	919129	1258094	1135160	1106661	1106661	570711	542158	675860	529295	0.46	0.78
3B3	BT2	GBJ	NONE	14375	10346										
3B3	BT2	NED	NONE	5147		4796			1471		663				
3B3	BT2	SCO	NONE				9776	3055	6353						
3B3	GN1	BEL	NONE	18591	19026	23556	906	10560	19527	10885					
3B3	GN1	ENG	CPART13B									309			
3B3	GN1	ENG	NONE	3373	219	2529	1699	4957	12756	25620	25787	10339	3563	1.75	0.34
3B3	GN1	FRA	NONE	341495	243018	301125	386493	150995	150995	98661	45185	109662	98840	0.33	0.90
3B3	GN1	NED	NONE			442									
3B3	GT1	BEL	NONE				26676	16200	7416	21600	30600	34086	34684		1.02
3B3	GT1	ENG	NONE	8742	9183	6081	7708	9580	5968	8324	8075	8332	7694	0.96	0.92
3B3	GT1	FRA	NONE	2632950	3308229	3681721	3588824	2611489	2607735	1796377	1839296	1771276	1816224	0.57	1.03
3B3	GT1	IRL	NONE									220			
3B3	LL1	ENG	CPART13B							30899	25183	24565	27489		1.12
3B3	LL1	ENG	NONE	31882	39988	40165	37923	39699	40081	15397	13022	11097	12344	0.33	1.11
3B3	LL1	ESP	NONE									672	1022		1.52
3B3	LL1	FRA	NONE	163370	97311	114742	162573	116680	116680	118214	86512	69920	97800	0.78	1.40
3B3	TR1	BEL	NONE							10219	1858	4645	5795		1.25
3B3	TR1	ENG	CPART13B										1271		
3B3	TR1	ENG	CPART13C						4350	2226	11276	1229	2446		1.99
3B3	TR1	ENG	NONE	473	1306	788	268	4154							
3B3	TR1	FRA	NONE	49849	60402	49633	224000	73652	73652	91341	113909	53370	119494	2.24	2.24
3B3	TR1	IRL	NONE										420		
3B3	TR1	NED	NONE	4062					5888	4981	3472		4000		
3B3	TR1	SCO	CPART13B									3750			
3B3	TR1	SCO	CPART13C								1292		8779		
3B3	TR2	BEL	NONE	27043	10703	23328	13756	15816	46344	132308	189285	212691	229843	11.29	1.08
3B3	TR2	ENG	CPART13B						87339	281244	301325	404526	363919		0.90
3B3	TR2	ENG	CPART13C						193078	89159	73206	82494	100380		1.22
3B3	TR2	ENG	NONE	271549	249748	184677	148256	165497							
3B3	TR2	FRA	CPART13B									289041	314665		1.09
3B3	TR2	FRA	NONE	12929692	11713996	13485158	13060035	10070068	9834906	6980814	6766474	6300774	5578182	0.44	0.89
3B3	TR2	GBJ	CPART13B						7480						
3B3	TR2	GBJ	NONE	20201	23483	10560	13420	9680							
3B3	TR2	IRL	NONE									1437			
3B3	TR2	NED	NONE	316376	344814	287224	434839	625656	602354	701538	608347	706896	872099	2.76	1.23
3B3	TR2	SCO	CPART13B						66292	250268	158225	90437			
3B3	TR2	SCO	CPART13C						264567		67063	52632	57000		1.08
3B3	TR2	SCO	NONE			116011	209124	340147							
3B3	TR3	ENG	NONE				252								
3B3	TR3	FRA	NONE	79758	99705	114293	138596	65643	64323	134347	122925	92978	80846	0.83	0.87
3B3	TR3	NED	NONE	3048											
Sum				147630963	140965469	134953181	124626584	108709327	106456621	97088202	87575501	79078104	80135315	0.57	1.01

Table 5.3.1.2 Area 3b: Trend in nominal effort (Kw *days at sea) by Gear group and subarea. 2004-2013 (the extended time series is available on the STECF website). NB CPArt11 and SPECON IIA83b is accounted for in the *un*regulated gears

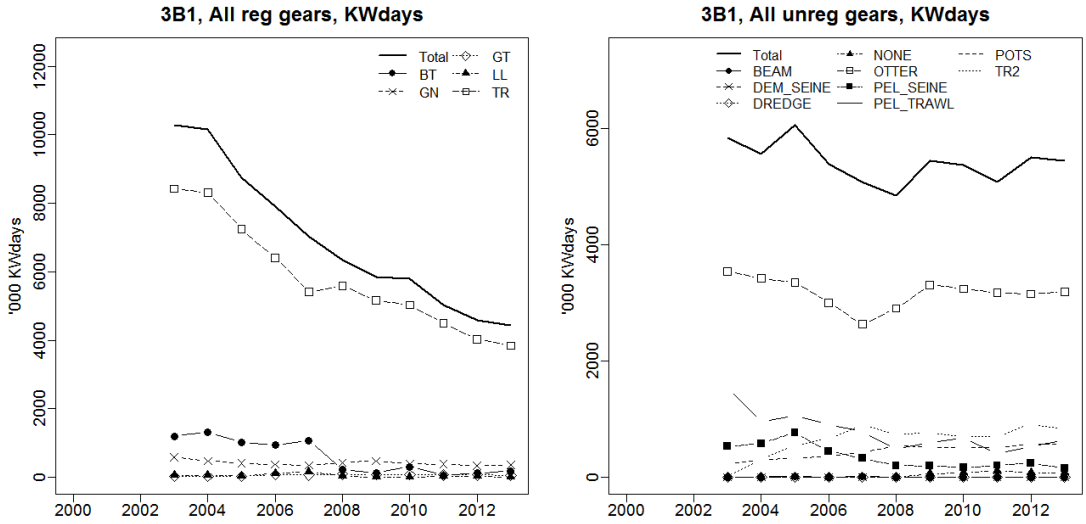
REG AREA	REG GEAR	SPECON	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Rel 04-06	Rel 2012
3B1	BT1	NONE	594176	458162	352036	437780	101714	69750	161611	59747	123592	172955	0.37	1.40
3B1	BT2	NONE	721862	561312	592584	622304	111451	60898	142429	884				
3B1	GN1	NONE	474578	414042	372197	348684	421919	474722	395744	377577	337238	361031	0.86	1.07
3B1	GT1	NONE	18265	30274	66234	62545	88262	73141	65465	64058	63277	59696	1.56	0.94
3B1	LL1	NONE	48785	41166	111585	155813	44708	1173	2481	33595	31114	5589	0.08	0.18
3B1	TR1	CPART13B						119193	20700	30300	16063	86886		5.41
3B1	TR1	CPART13C										1309		
3B1	TR1	NONE	925408	1587641	1592741	1858955	1584945	1430409	1566561	1009983	1107220	1286451	0.94	1.16
3B1	TR2	NONE	7171107	5426872	4741057	3517769	3980942	3599749	3427784	3458301	2904422	2331252	0.40	0.80
3B1	TR3	NONE	209981	234957	72498	38292	17405	18494	13387	1145	3621	132609	0.77	36.62
Sum			10164162	8754426	7900932	7042142	6351346	5847529	5796162	5035590	4586547	4437778	0.50	0.97
3B2	BT1	CPART13B							202685	169873	384590	575558		1.50
3B2	BT1	NONE	4967391	4613201	5347148	3253567	2039300	1673392	1428372	1355176	2414496	2755483	0.55	1.14
3B2	BT2	CPART13B						47771	2863860	2644958	2412375	2853226		1.18
3B2	BT2	NONE	59372980	58960079	50361801	48376597	36065423	36826274	33377907	28925341	24974095	26599943	0.47	1.07
3B2	GN1	CPART13B							111390	152556	102172	177100		1.73
3B2	GN1	CPART13C										11890		
3B2	GN1	NONE	3517787	3359430	3303982	2308528	2483556	2463179	2443244	2462647	2325151	2024067	0.60	0.87
3B2	GT1	NONE	1039243	1056332	1973787	1821196	1142813	1228487	840426	925782	1017477	1115269	0.82	1.10
3B2	LL1	CPART13B						143				29060		
3B2	LL1	NONE	168316	188467	119701	44183	420707	765155	416271	234949	125494	77704	0.49	0.62
3B2	TR1	CPART13A									2672	4310		1.61
3B2	TR1	CPART13B						2442488	2841347	2533703	1770306	3948745		2.23
3B2	TR1	CPART13C						12809285	10637781	10440293	10200392	9483926		0.93
3B2	TR1	NONE	25414055	24713620	25177922	21604077	24340696	8956577	8034257	7625745	5792942	5579030	0.22	0.96
3B2	TR2	CPART13A									90338	247848		2.74
3B2	TR2	CPART13B						4548204	8542965	6237485	1276878	562826		0.44
3B2	TR2	CPART13C						5493442	1208609	1880447	5154630	3826387		0.74
3B2	TR2	NONE	18608541	17247611	16130851	16233406	16433136	4805799	3649017	3488767	3124539	2710991	0.16	0.87
3B2	TR3	CPART13B										82		
3B2	TR3	NONE	3084583	2429355	1790416	834392	928345	613896	1138948	364603	526442	883952	0.36	1.68
Sum			116172896	112568095	104205608	94475946	83853976	82674092	77737079	69442325	61694989	63467397	0.57	1.03
3B3	BT1	NONE					3578				318	33947		106.75
3B3	BT2	CPART13B						108485	123228	101532	144684	108270		0.75
3B3	BT2	NONE	4391451	3421817	4404608	4653148	4169954	3614784	2627311	2503737	2314188	2249124	0.55	0.97
3B3	GN1	CPART13B									309			0.00
3B3	GN1	NONE	363459	262263	327652	389098	166512	183278	135166	70972	120001	102403	0.32	0.85
3B3	GT1	NONE	2641692	3317412	3687802	3623208	2637269	2621119	1826301	1877971	1813914	1858602	0.58	1.02
3B3	LL1	CPART13B							30899	25183	24565	27489		1.12
3B3	LL1	NONE	195252	137299	154907	200496	156379	156761	133611	99534	81689	111166	0.68	1.36
3B3	TR1	CPART13B									3750	1271		0.34
3B3	TR1	CPART13C						4350	2226	12568	1229	11225		9.13
3B3	TR1	NONE	54384	61708	50421	224268	77806	79540	106541	119239	58015	129709	2.34	2.24
3B3	TR2	CPART13B						161111	531512	459550	784004	678584		0.87
3B3	TR2	CPART13C						457645	89159	140269	135126	157380		1.16
3B3	TR2	NONE	13564861	12342744	14106958	13879430	11226864	10483604	7814660	7564106	7221798	6680124	0.50	0.92
3B3	TR3	NONE	82806	99705	114293	138848	65643	64323	134347	122925	92978	80846	0.82	0.87
Sum			21293905	19642948	22846641	23108496	18504005	17935000	13554961	13097586	12796568	12230140	0.58	0.96
Grand sum			147630963	140965469	134953181	124626584	108709327	106456621	97088202	87575501	79078104	80135315	0.57	1.01

Table 5.3.1.3 Area 3b: Trend in nominal effort (Kw *days at sea) of unregulated gears by subarea. 2003-2013 (the extended time series is available on the STECF website). NB CPArt11 and SPECON IIA83b is accounted for in the *un*regulated gears. The last line gives the total effort of all gears in Area 3b.

REG_AREA	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	rel 04-06	rel 2012
3B1 total	5847376	5571271	6064813	5397317	5082719	4855283	5455095	5382084	5083047	5506112	5453994	0.96	0.99
3B2 total	50731775	51049280	40843512	38091923	34907032	31156761	33829775	32102961	29905082	36045920	39861602	0.92	1.11
3B3 total	7159706	7548509	10267830	6901208	7101292	5916597	6421808	6705668	5292201	5616550	5889999	0.71	1.05
Grand Total unreg gears in area 3b	63738857	64169060	57176155	50390448	47091043	41928641	45706678	44190713	40280330	47168582	51205595	0.89	1.09
Grand total (reg and unreg gears) area 3b	219727901	211800023	198141624	185343629	171717627	150637968	152163299	141278773	127855831	126246686	131340910	0.66	1.04

Table 5.3.1.4 Area 3b: Share of regulated effort in total effort by subarea. 2003-2013.

Reg_AREA	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
3B1 total	0.64	0.65	0.59	0.59	0.58	0.57	0.52	0.52	0.50	0.45	0.45
3B2 total	0.71	0.69	0.73	0.73	0.73	0.73	0.71	0.71	0.70	0.63	0.61
3B3 total	0.74	0.74	0.66	0.77	0.76	0.76	0.74	0.67	0.71	0.69	0.67
3b combined	0.71	0.70	0.71	0.73	0.73	0.72	0.70	0.69	0.68	0.63	0.61



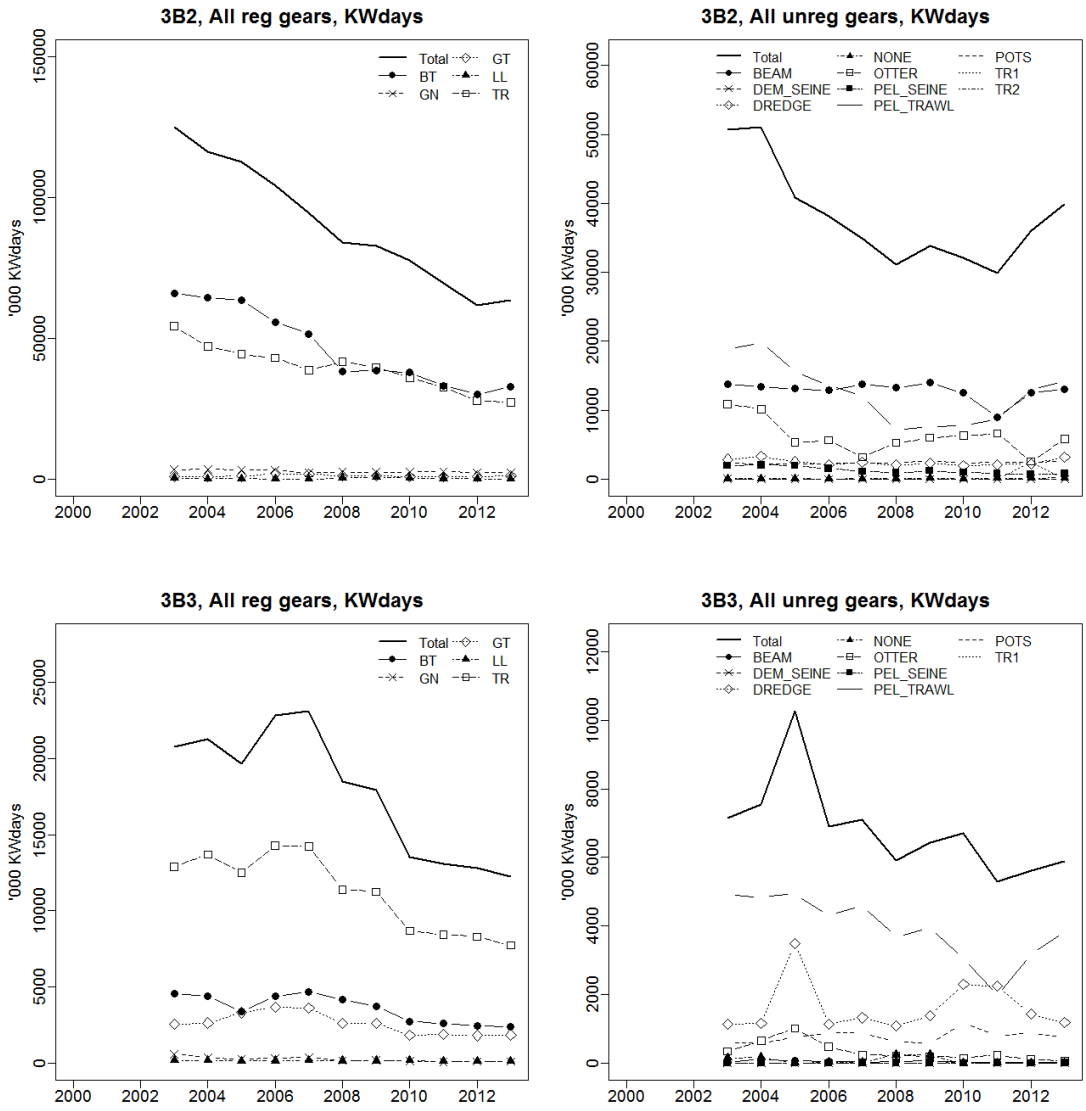
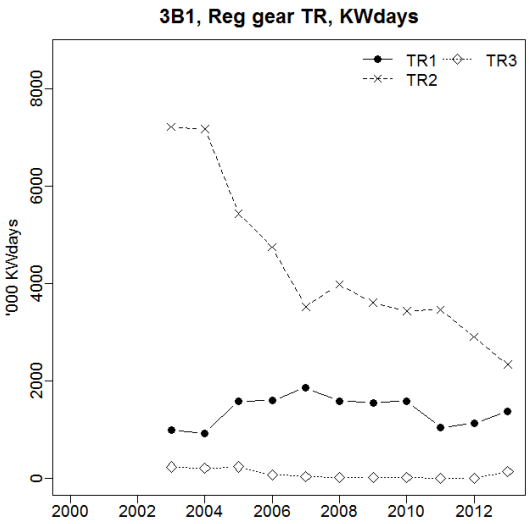
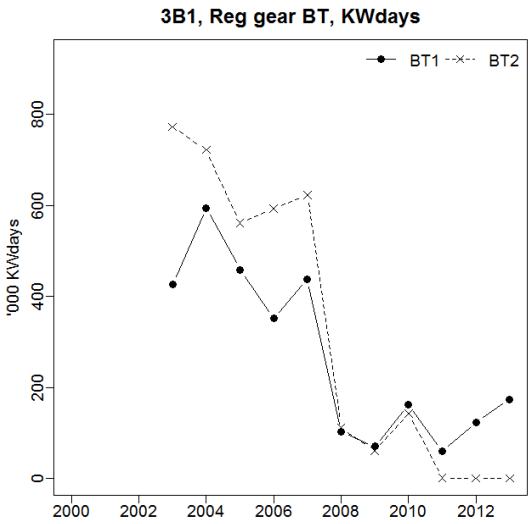
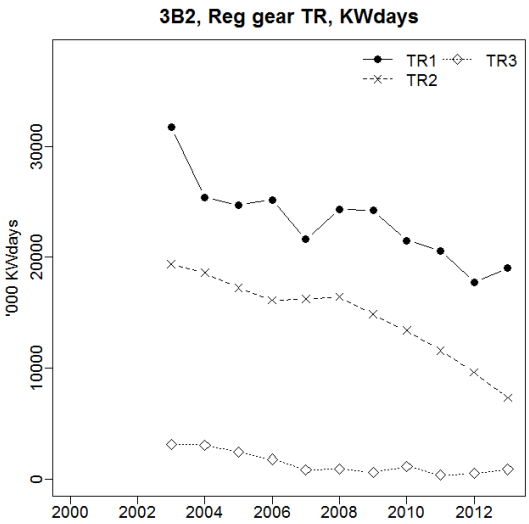
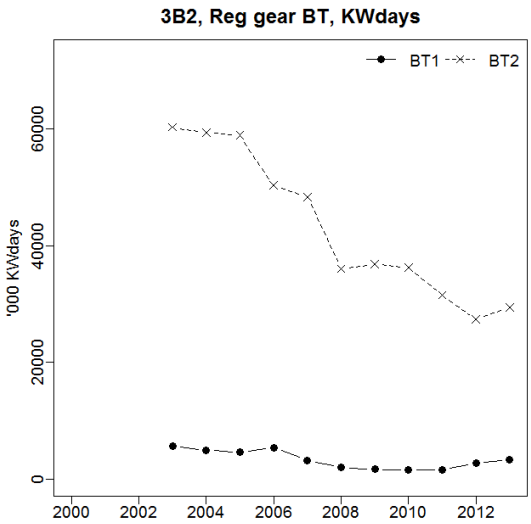


Figure 5.3.1.1. Management area 3b. Effort trends for regulated (left) and unregulated (right, TR regards CPArt11) gear types by subarea. TR = demersal otter trawl and demersal seine, BT = Beam trawl, GN = Gillnet, GT = Trammel net, LL = Longline. NB y-axis scale varies across plots.


3B1, Reg gear TR, KWdays
TR1
TR3
TR2
'000 KWdays
0
2000
4000
6000
8000
2000
2002
2004
2006
2008
2010
2012


3B1, Reg gear BT, KWdays
BT1
BT2
'000 KWdays
0
200
400
600
800
2000
2002
2004
2006
2008
2010
2012


3B2, Reg gear TR, KWdays
TR1
TR3
TR2
'000 KWdays
0
10000
20000
30000
2000
2002
2004
2006
2008
2010
2012


3B2, Reg gear BT, KWdays
BT1
BT2
'000 KWdays
0
20000
40000
60000
2000
2002
2004
2006
2008
2010
2012

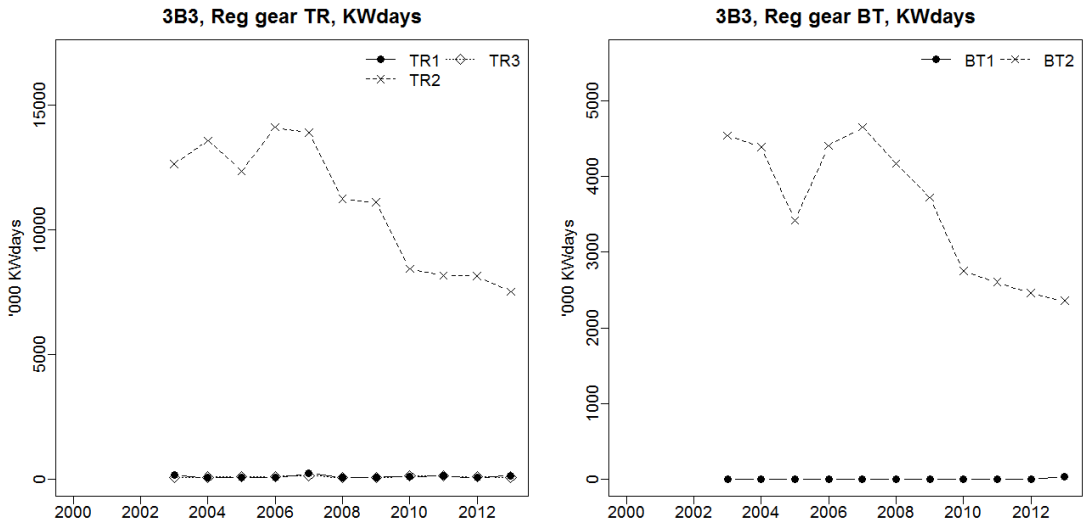
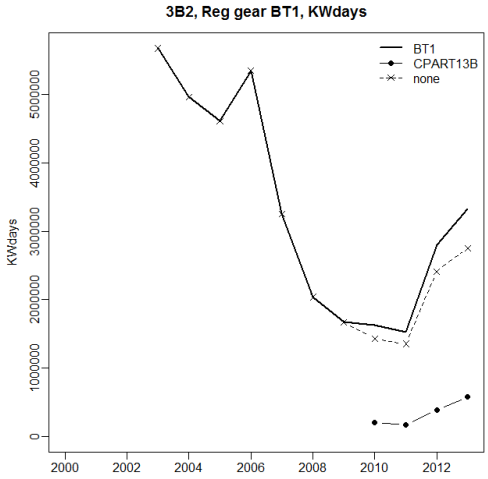
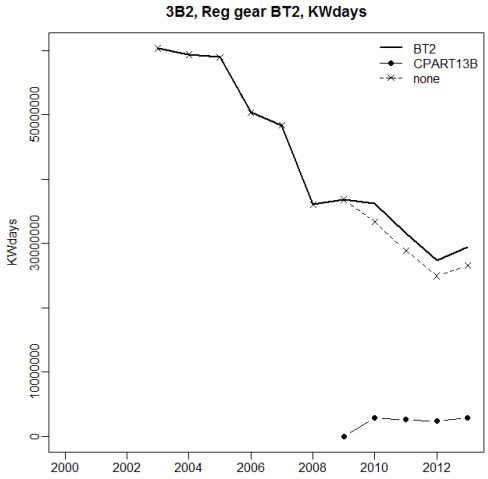


Figure 5.3.1.2. Management area 3b. Effort trends for regulated TR and BT gear by sub-area disaggregated by mesh size range. NB y-axis scale varies across plots.


3B2, Reg gear BT1, KWdays
BT1
CPART13B
none
KWdays
0
1000000
2000000
3000000
4000000
5000000
2000
2002
2004
2006
2008
2010
2012


3B2, Reg gear BT2, KWdays
BT2
CPART13B
none
KWdays
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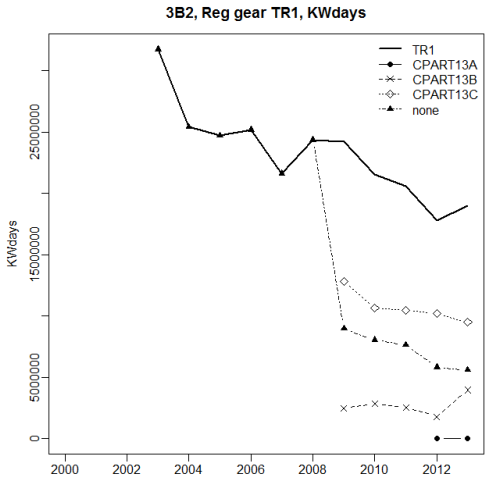
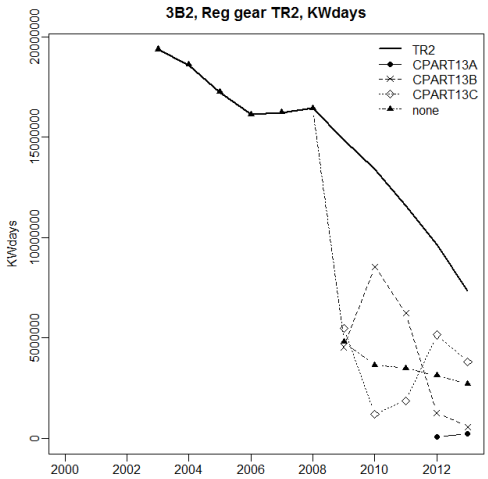
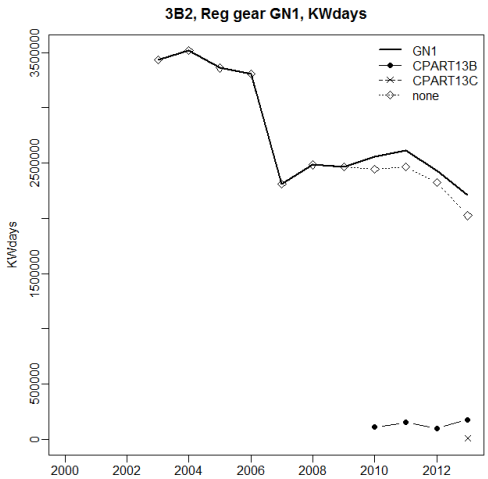
10000000
30000000
50000000
2000
2002
2004
2006
2008
2010
2012


3B2, Reg gear TR1, KWdays
TR1
CPART13A
CPART13B
CPART13C
none
KWdays
0
5000000
15000000
25000000
2000
2002
2004
2006
2008
2010
2012


3B2, Reg gear TR2, KWdays
TR2
CPART13A
CPART13B
CPART13C
none
KWdays
0
5000000
10000000
15000000
20000000
2000
2002
2004
2006
2008
2010
2012


3B2, Reg gear GN1, KWdays
GN1
CPART13B
CPART13C
none
KWdays
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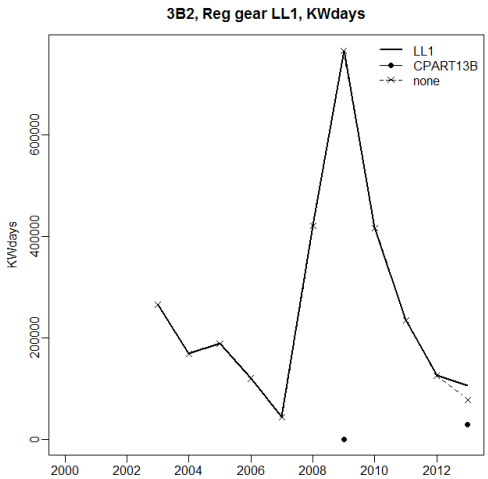
500000
1500000
2500000
3500000
2000
2002
2004
2006
2008
2010
2012


3B2, Reg gear LL1, KWdays
LL1
CPART13B
none
KWdays
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200000
400000
600000
2000
2002
2004
2006
2008
2010
2012

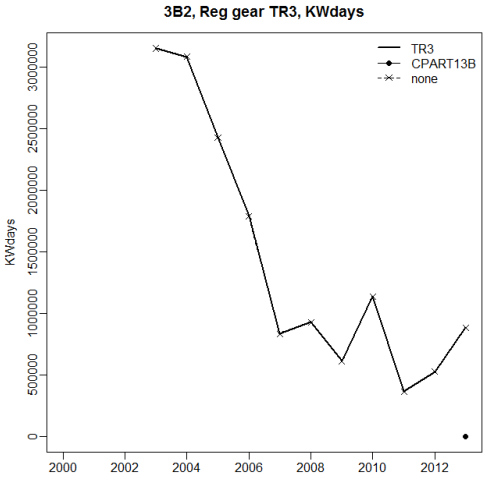
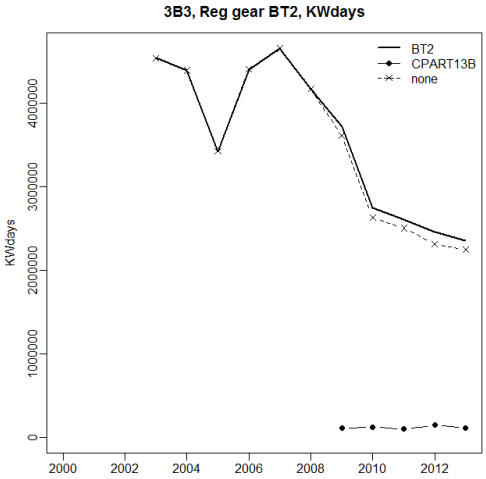
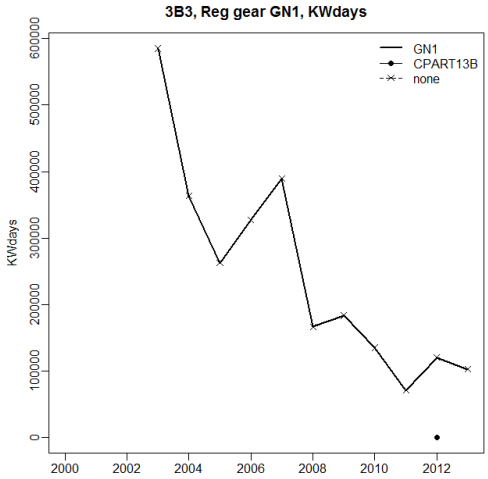


Figure 5.3.1.3. Management area 3b, subarea 3b2 (North Sea). Effort separated by each individual SPECON within regulated gear type when applied.





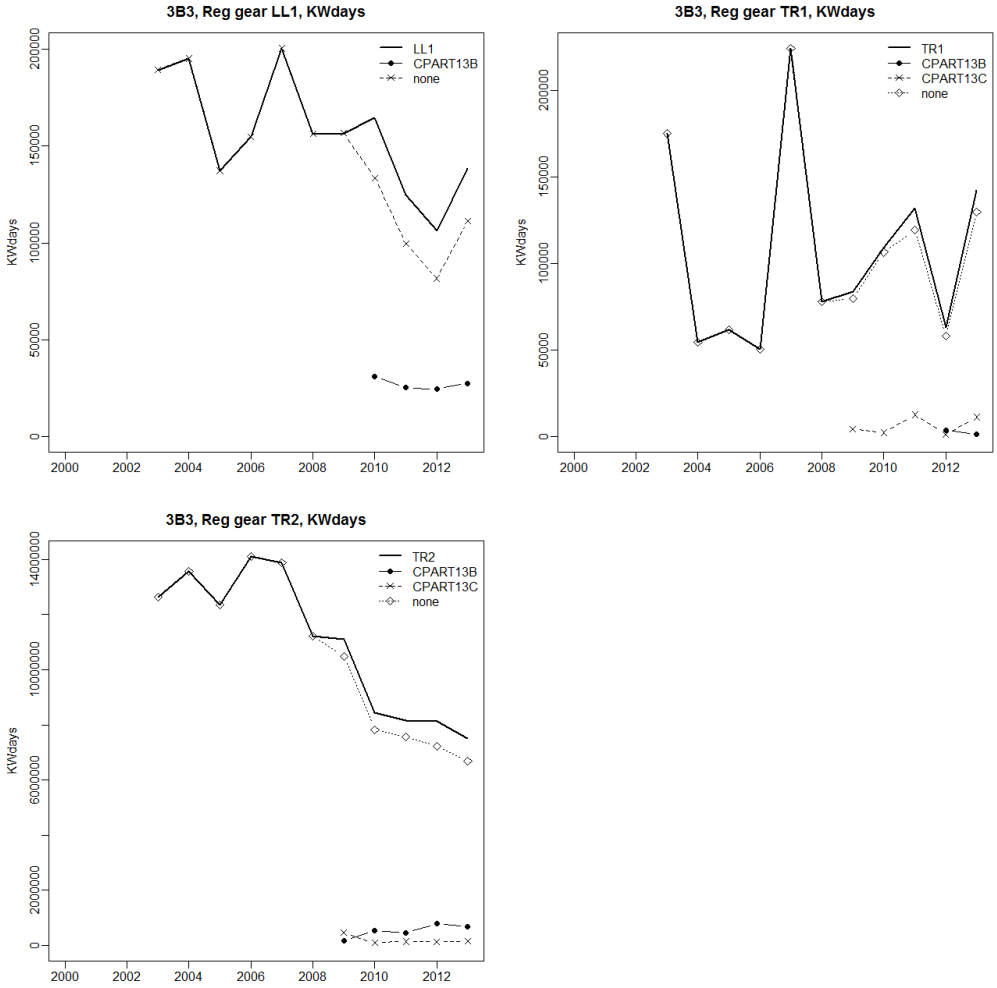


Figure 5.3.1.4. Management area 3b, subarea 3b3 (Eastern Channel) and 3b1 (Skagerrak). Effort separated by each individual SPECON within regulated gear type when applied.

Table. 5.3.1.5 Area 3b: Relative change in nominal effort 2014 data submission compared to 2013 submission (kW *days at sea) by subarea, country, gear, derogation and vessel length 2003-2012. Only the lines with non-zeros values are displayed

annex	reg_area_co	reg_gear_cod	country	specon	vessel_length	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
IIA	3B2	POTS	IRL	NONE	O15M	0	0	0	0	0	0	0	0	0	0.022
IIA	3B2	POTS	IRL	NONE	O15M	0	0	0	0	0	0	0	0	0	0.022
IIA	3B2	POTS	IRL	NONE	O15M	0	0	0	0	0	0	0	0	0	0.022
IIA	3B3	TR2	IRL	NONE	O15M	0	0	0	0	0	0	0	0	0	0.521
IIA	3B3	TR2	IRL	NONE	O15M	0	0	0	0	0	0	0	0	0	0.521
IIA	3B3	TR2	IRL	NONE	O15M	0	0	0	0	0	0	0	0	0	0.521

5.3.1.2 Fishing effort of unregulated gears, management area 3b

Effort trends by unregulated gears (including CPArt11 and SPECON IIA83b) are given in Table 5.3.1.6 and shown in Figure 5.3.1.1.1 together with the regulated effort in the previous section. Category ‘none’ represents unregulated gear types and mesh sizes in addition to unidentified mesh sizes, and this category represents 0.5% of the unregulated effort in 2013.

The unregulated effort has increased in sub-areas 3b2 and 3b3 in 2013 compared to 2012. This, together with the general decreasing trend of regulated effort, make that unregulated effort represents now almost 40% of the total effort in area 3b. This is despite nearly all French TR1 effort being re-classified from the CPart11 exemption in 2012 back to under article 13b. When nearly all French TR1 effort was re-classified to CPart11 exemption in 2012, it was accompanied by an increase of effort of this fishery back to its 2009 level. As stated, in 2013 the exempted vessels are back under article 13b.

In Skagerrak (3b1), the main unregulated effort is performed with otter trawls with other mesh sizes (59%, including the major small meshed *Pandalus* trawling), and with unregulated TR2 fishing for *Nephrops* under CPArt11 exemption (15%). In the North Sea (3b2), most of the unregulated effort is performed by pelagic fisheries and unregulated beam trawls (mainly the small mesh-sized *Crangon* beam fishery), with 38% and 33% of the 2013 unregulated effort in the area respectively. In the Eastern Channel (3b3), nearly all unregulated effort is performed using pelagic trawls, dredges and pots (65%, 20% and 13% of 2013 unregulated effort respectively).

Table 5.3.1.6. Effort (kWdays) of unregulated gear by subarea in area 3b 2003-2013. The full time series is available on the STECF website.

REG_AREA	GEAR	SPECON	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	rel 04-06	rel 2012
3B1	BEAM	NONE		6531	9484		13085	442				4597		0.00	0.00
	DEM_SEINE	NONE	2183			439		368	177		104			0.00	
	DREDGE	NONE	231	540			94		94	484	390	128		0.00	0.00
	NONE	NONE	1776	153	469	727	10119	217	58975	85324	100480	80578	74322	165.28	0.92
	OTTER	NONE	3544400	3427326	3354592	3007470	2633605	2905565	3313077	3246259	3175442	3158753	3194800	0.98	1.01
	PEL_SEINE	NONE	530066	581166	771370	447103	329070	198654	196295	165770	201916	244262	151481	0.25	0.62
	PEL_TRAWL	NONE	1527128	954414	1064576	910470	785364	474195	600538	680827	404710	524294	644472	0.66	1.23
	POTS	NONE	241592	292682	322315	366137	416807	540803	519185	504260	504191	573080	569777	1.74	0.99
	TR2	CPART11							766754	699160	695814	920420	819142		0.89
		IIA83B		308459	542007	664971	894575	735039						0.00	
3B1 total			**5847376**	**5571271**	**6064813**	**5397317**	**5082719**	**4855283**	**5455095**	**5382084**	**5083047**	**5506112**	**5453994**	0.96	0.99
3B2	**BEAM**	NONE	13771171	13393539	13150790	12887540	13735577	13288264	13977649	12502485	8988168	12511111	13094042	1.00	1.05
	DEM_SEINE	NONE	22916	9718	23138	2146	13017	4846	14128	17871		27144	6051	0.52	0.22
	DREDGE	NONE	2880919	3296169	2508437	2073566	2479674	2035480	2315671	1988726	2132577	2210516	3162569	1.20	1.43
	NONE	NONE	90735	87526	64797	50106	73483	63328	134203	80714	115574	143766	206566	3.06	1.44
	OTTER	NONE	10858228	10164778	5377674	5659003	3209016	5298165	6004949	6339670	6630044	2587249	5845542	0.83	2.26
	PEL_SEINE	NONE	1982133	2053534	1962646	1522402	1087940	932519	1221321	971554	819015	662248	836660	0.45	1.26
	PEL_TRAWL	NONE	18799521	19795935	15590942	13622148	11994660	7183610	7585415	7758977	8761269	12959556	14127118	0.86	1.09
	POTS	NONE	2326152	2248081	2165088	2275012	2313665	2350549	2576439	2343830	2419764	2452338	2572655	1.15	1.05
	TR1	CPART11										2469180			0.00
	TR2	CPART11								99134	38671	22812	10399		0.46
3B2 total			**50731775**	**51049280**	**40843512**	**38091923**	**34907032**	**31156761**	**33829775**	**32102961**	**29905082**	**36045920**	**39861602**	0.92	1.11
3B3	**BEAM**	NONE	30157	121214	70108	51418	32339	48248	69118	26586	24517	21417	13295	0.16	0.62
	DEM_SEINE	NONE	1323							21500	1125		1500		
	DREDGE	NONE	1128525	1162627	3483715	1144701	1323782	1080856	1391023	2291506	2241794	1426359	1184716	0.61	0.83
	NONE	NONE	155575	172817	2468	32944	19603	241609	241609		4141			0.00	
	OTTER	NONE	346749	648988	1016771	477940	242207	224612	199366	151753	240336	108974	73034	0.10	0.67
	PEL_SEINE	NONE		7680				7764	7764		1650		4444	0.58	
	PEL_TRAWL	NONE	4903883	4848102	4939656	4312174	4599318	3687254	3942055	3048145	1966515	3177736	3846950	0.82	1.21
	POTS	NONE	593494	587081	755112	882031	884043	626254	570873	1166178	812123	872370	766060	1.03	0.88
	TR1	CPART11										9694			0.00
3B3 total			**7159706**	**7548509**	**10267830**	**6901208**	**7101292**	**5916597**	**6421808**	**6705668**	**5292201**	**5616550**	**5889999**	0.71	1.05
Grand Total unregulated gears in area 3b			**63738857**	**64169060**	**57176155**	**50390448**	**47091043**	**41928641**	**45706678**	**44190713**	**40280330**	**47168582**	**51205595**	**0.89**	**1.09**

Statistics on fishing capacity can be taken from the electronic appendixes to the present report, which can be downloaded from: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1413

5.3.1.3 Uptake of effort baseline

The uptake of effort baselines is presented in Figure 5.3.1.5. Care must be taken in the interpretation of this figure, for a number of reasons, including e.g.: i) the baseline displayed here is extracted from the TAC and quotas regulations nr 43/2009, 53/2010, 57/2011, 44/2012, 40/2013 and 43/2014 and does not take into account the effort buyback performed by Member states as part of Article 13 and/or other agreements. This information is sometimes publicly available for some Member States, but not for all and STECF has not been provided with this information specifically; ii) as described in section 4, the effort information provided to STECF by a number of Member States is calculated in calendar days, whereas the actual regulation of effort uptake is based on 24h period, which can lead to some differences especially in coastal fisheries; iii) STECF data are calculated by calendar year whereas the effort baselines apply from February to January.

Point i) above is particularly important for the demersal trawls/seines fishery, as 66% and 32% of the regulated effort (i.e. excluding article 11) by TR1 and TR2 respectively is operated under article 13, and the actual effort is therefore much higher than the official baseline.

For all other regulated gears, the actual overall effort is not constrained by the baseline; however a break down by individual member states would show that some national segments are more constrained than others.

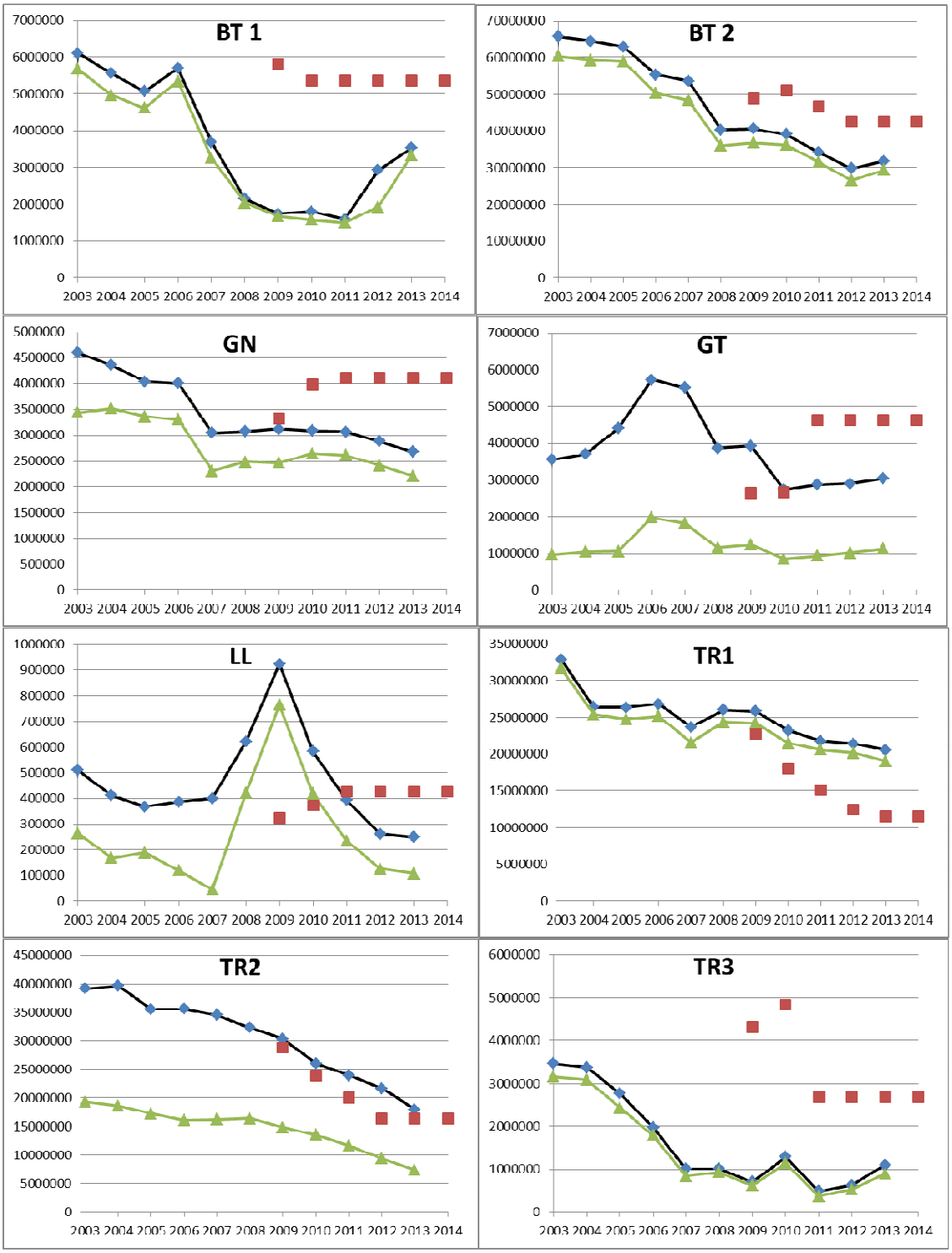


Figure 5.3.1.5 Management area 3b. Uptake of effort ceilings. Red squares: effort ceiling. Blue diamonds: regulated effort in whole area 3b (CPart 11 excluded). Green triangles: regulated effort in North Sea (subarea 3b2) alone.

5.3.2 ToR 1.b Catches (landings and discards) of cod in weight and numbers at age by fisheries

Estimated landings and discards of cod by cod plan gear category for the areas 3b1, 3b2 and 3b3 are given in Table 5.3.2.1. The same is displayed for unregulated gears (Table 5.3.2.3). Detailed data on age compositions of landings are not contained in the report but are available on the JRC website : http://stecf.jrc.ec.europa.eu/web/stecf/ewg1413. The same applies to estimates by country. In addition, a discard coverage index is presented in tables 5.3.2.2 and 5.3.2.4. In general, because of the limited availability and reliability of discard information for some species and from some countries contributing substantially to landings, care is required in the use of these data to draw firm conclusions about catch composition. Especially discard rates classified with a C have to be treated with great care. In addition, the procedure used to raise discards as explained in section 4 may not be fully consistent with the procedures used in other contexts and therefore may not be directly comparable.

Information related to the Fully Documented Fishery (FDF) is dealt with specifically in section 5.3.8 further below.

A number of figures are included in this report, displaying total landings (white) and discards (grey – when available) in weight for all regulated gears from 2005 to 2013 (Figures 5.3.2.1 – 5.3.2.3).

Landings and discards of cod were analysed for the Skagerrak, the North Sea and the Eastern Channel separately (Table 5.3.2.1 and 5.3.2.3). Discard rates for TR1 (none and CPart13 b+c) are generally higher in the Skagerrak than in the North Sea in most of the years. TR2 CPart13b has a substantially lower discard rate in 2012 and 2013 compared to previous years. In contrast TR2 CPart13c shows very high discard rates in the North Sea in 2013 and in the years before. In the Eastern Channel discard information is very scarce and not representative. Especially for the TR2 fisheries not enough discard information is available for area 3b3.

Overall, cod discard rates have decreased after 2008 especially for TR1. However, discard rates for TR1 CPart13c showed again a substantial increase in 2013 compared to 2012. High discard rates can still be found for TR2 gears.

Catches from unregulated gears do not play a major role. Highest landings come from unregulated Otter trawls in the Skagerrak.

Numbers at age by fisheries is not dealt with this year.

Table 5.3.2.1 Skagerrak (3b1), North Sea (incl. 2EU; 3b2), and Eastern Channel (3b3): Landings (t), discards (t) and relative discard rates in weight for cod by regulated gear, 2006-2013.

Reg_area	Reg_gear	Specon	Species	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R	2013 L	2013 D	2013 R
3B1	**BT1**	NONE	COD	50.30			28.03			11.19			1.10			17.12			7.67			10.82			6.74		
3B1	**BT2**	NONE	COD	37.02			18.88			14.80			11.38			3.45			0.00	0.00							
3B1	**GN1**	NONE	COD	432.95			559.54			589.90			672.51	25.23	0.04	760.69	15.53	0.02	668.89	13.81	0.02	640.07	11.76	0.02	685.79	9.46	0.01
3B1	**GT1**	NONE	COD	8.67			6.73			47.39			86.80	4.73	0.05	67.41	1.62	0.02	74.18	2.30	0.03	92.92	2.05	0.02	59.58	1.17	0.02
3B1	**LL1**	NONE	COD	30.08			88.70			62.73			5.59			9.36			22.81	0.06	0.00	22.66			5.44		
3B1	**TR1**	CPART13B	COD										2.67	0.03	0.01	2.01	0.02	0.01	0.23			0.95			8.17		
3B1	**TR1**	CPART13C	COD																						5.34		
3B1	**TR1**	NONE	COD	443.43	1389.51	0.76	617.10	1653.28	0.73	759.50	349.89	0.32	1017.10	732.44	0.42	1158.28	548.85	0.32	1016.47	403.54	0.28	1375.27	346.73	0.20	1547.67	489.77	0.24
3B1	**TR2**	IIA83B	COD	0.57	4.47	0.89	0.72	13.70	0.95	0.03	6.32	1.00															
3B1	**TR2**	NONE	COD	1268.86	2405.54	0.66	892.70	1810.75	0.67	965.08	738.19	0.43	1224.34	1296.20	0.51	1196.67	1076.25	0.47	1234.09	1456.02	0.54	1253.66	1332.32	0.52	1110.92	797.18	0.42
3B1	**TR3**	NONE	COD	1.42	0.20	0.12	0.03						0.59			0.56	0.00		0.02						16.30		
3B1 total				**2273.30**			**2212.42**			**2450.61**			**3022.08**			**3215.55**			**3024.34**			**3396.35**			**3445.95**		
3B2	**BT1**	CPART13B	COD													1.25			3.24			4.28			0.84		
3B2	**BT1**	NONE	COD	1112.40	390.66	0.26	744.36			365.31	232.01	0.39	230.42			306.27			400.94			683.29			934.45	450.89	0.33
3B2	**BT2**	CPART13B	COD										1.77			50.82			46.26			31.86			27.14	0.98	0.04
3B2	**BT2**	NONE	COD	2163.59	423.06	0.16	1983.30	194.56	0.09	2450.77	855.49	0.26	2233.00	441.01	0.17	1739.25	264.97	0.13	1257.52	97.70	0.07	979.95	137.63	0.12	574.69	69.30	0.11
3B2	**GN1**	CPART13B	COD																						1.15		
3B2	**GN1**	NONE	COD	2804.03	99.01	0.03	1813.34			1970.85	1.60	0.00	2200.60			2605.27	19.20	0.01	2208.95	122.98	0.05	1763.75	65.07	0.04	1319.92	90.04	0.06
3B2	**GT1**	NONE	COD	169.99	6.18	0.04	132.12	0.07	0.00	189.78	0.18	0.00	249.01	2.41	0.01	195.51	0.06	0.00	135.37	12.78	0.09	194.34	9.24	0.05	203.43	21.46	0.10
3B2	**LL1**	NONE	COD	197.36			90.95			141.76			119.45			280.68			157.23	1.46	0.01	141.67	0.14	0.00	1.28		
3B2	**TR1**	CPART13A	COD																			0.07					
3B2	**TR1**	CPART13B	COD										511.72	278.09	0.35	671.71	168.87	0.20	323.93	68.34	0.17	194.51	3.79	0.02	262.23	15.21	0.06
3B2	**TR1**	CPART13C	COD										9454.95	5737.69	0.38	11952.10	2951.45	0.20	10984.57	1385.01	0.11	11055.43	2549.38	0.19	12140.58	5141.71	0.30
3B2	**TR1**	NONE	COD	11674.56	2607.99	0.18	10514.31	6623.51	0.39	12650.70	14870.31	0.54	6946.00	1286.87	0.16	6763.45	574.51	0.08	5809.77	222.20	0.04	6305.54	511.47	0.08	5521.20	618.47	0.10
3B2	**TR2**	CPART13A	COD																			0.00			2.39		
3B2	**TR2**	CPART13B	COD										111.71	296.34	0.73	443.38	994.15	0.69	166.89	555.22	0.77	44.19	7.53	0.15	20.02	8.54	0.30
3B2	**TR2**	CPART13C	COD										409.53	904.42	0.69	149.01	151.69	0.50	184.91	533.60	0.74	227.44	978.74	0.81	106.61	340.29	0.76
3B2	**TR2**	NONE	COD	1344.82	1619.04	0.55	1468.70	4447.76	0.75	1588.23	2801.40	0.64	986.06	334.72	0.25	664.49	370.27	0.36	741.62	416.31	0.36	381.31	83.04	0.18	271.68	63.58	0.19
3B2	**TR3**	NONE	COD	6.25			4.15			0.24			0.90			10.79			1.85			0.60			2.08		
3B2 total				**19473.00**			**16751.23**			**19357.62**			**23455.13**			**25833.97**			**22423.05**			**22008.22**			**21389.67**		
3B3	**BT1**	NONE	COD							1.04															2.73		
3B3	**BT2**	CPART13B	COD										2.63			0.47	0.28	0.38	0.25	0.00		0.50	0.37	0.42	0.14		
3B3	**BT2**	NONE	COD	102.69	19.71	0.16	101.19	30.87	0.23	165.25	85.32	0.34	84.59	8.37	0.09	55.48	6.01	0.10	53.25	2.83	0.05	37.98	3.06	0.08	42.19	0.17	0.00
3B3	**GN1**	NONE	COD	142.59			161.61			81.73			83.73			35.67			33.76	0.00		48.12	0.00		31.19		
3B3	**GT1**	NONE	COD	169.95			206.21			142.46			139.83			152.33	4.01	0.03	139.34	13.53	0.09	134.38	4.57	0.03	113.35	0.90	0.01
3B3	**LL1**	CPART13B	COD																			0.00					
3B3	**LL1**	NONE	COD	4.14			3.94			3.76			4.08			2.05			3.76			3.82			2.50		
3B3	**TR1**	CPART13C	COD										1.27			0.16	0.00		0.16			0.21			0.05		
3B3	**TR1**	NONE	COD	10.48			114.65			46.81			46.21			10.03	3.12	0.24	29.05			8.64	1.71	0.17	26.20	1.23	0.05
3B3	**TR2**	CPART13B	COD										8.18	0.92	0.10	12.22	0.20	0.02	7.96	0.66	0.08	11.71	0.00		11.44		
3B3		CPART13C	COD										8.33	8.81	0.51	5.96	0.14	0.02	6.64	1.61	0.20	7.68			8.65		
3B3		NONE	COD	614.22	0.00		995.87			631.72	4.83	0.01	616.49			710.70	160.50	0.18	691.73	28.87	0.04	535.49	49.85	0.09	510.69	98.35	0.16
3B3	**TR3**	NONE	COD				0.00			0.60			0.60			6.57	0.44	0.06	2.22			1.94	0.12	0.06	0.00		
3B3 total				**1044.06**			**1583.45**			**1073.37**			**995.92**			**991.65**			**968.12**			**790.46**			**749.13**		
Grand total				**22790.36**			**20547.10**			**22881.60**			**27473.12**			**30041.17**			**26415.50**			**26195.04**			**25584.75**		

Table 5.3.2.2 Skagerrak (3b1), North Sea (incl. 2EU; 3b2)), and Eastern Channel (3b3): Relative discard rates (R) in weight and Discard coverage index (DQI) for cod by regulated gear, 2006-2013. Empty cells indicate that no discard information was available.

Reg_area	Reg_gear	Specon	Species	2006 R	2006 DQI	2007 R	2007 DQI	2008 R	2008 DQI	2009 R	2009 DQI	2010 R	2010 DQI	2011 R	2011 DQI	2012 R	2012 DQI	2013 R	2013 DQI
3B1	BT1	NONE	COD																
3B1	BT2	NONE	COD												A				
3B1	GN1	NONE	COD							0.036	A	0.02	A	0.02	A	0.018	A	0.014	B
3B1	GT1	NONE	COD							0.052	A	0.023	A	0.03	B	0.022	B	0.019	C
3B1	LL1	NONE	COD											0.003	C				
3B1	TR1	CPART13B	COD							0.01	B	0.01	C						
3B1	TR1	CPART13C	COD																
3B1	TR1	NONE	COD	0.758	A	0.728	A	0.315	A	0.419	A	0.322	A	0.284	A	0.201	A	0.24	A
3B1	TR2	IIA83B	COD	0.886	A	0.95	A	0.995	A										
3B1	TR2	NONE	COD	0.655	A	0.67	A	0.433	A	0.514	A	0.474	A	0.541	A	0.515	A	0.418	A
3B1	TR3	NONE	COD	0.122	C								C						
3B2	BT1	CPART13B	COD																
3B2	BT1	NONE	COD	0.26	A			0.388	A									0.325	B
3B2	BT2	CPART13B	COD															0.035	C
3B2	BT2	NONE	COD	0.164	A	0.089	A	0.259	A	0.165	C	0.132	A	0.072	A	0.123	A	0.108	A
3B2	GN1	CPART13B	COD																
3B2	GN1	NONE	COD	0.034	C			0.001	B			0.007	C	0.053	A	0.036	A	0.064	A
3B2	GT1	NONE	COD	0.035	C	0.001	C	0.001	C	0.01	C	0	C	0.086	B	0.045	B	0.095	B
3B2	LL1	NONE	COD											0.009	C	0.001	C		
3B2	TR1	CPART13A	COD																
3B2	TR1	CPART13B	COD							0.352	A	0.201	A	0.174	A	0.019	A	0.055	A
3B2	TR1	CPART13C	COD							0.378	A	0.198	A	0.112	A	0.187	A	0.298	A
3B2	TR1	NONE	COD	0.183	A	0.386	A	0.54	A	0.156	B	0.078	B	0.037	B	0.075	B	0.101	B
3B2	TR2	CPART13A	COD																
3B2	TR2	CPART13B	COD							0.726	A	0.692	A	0.769	A	0.146	A	0.299	A
3B2	TR2	CPART13C	COD							0.688	B	0.504	B	0.743	B	0.811	A	0.761	B
3B2	TR2	NONE	COD	0.546	B	0.752	B	0.638	B	0.253	C	0.358	C	0.36	B	0.179	B	0.19	C
3B2	TR3	NONE	COD																
3B3	BT1	NONE	COD																
3B3	BT2	CPART13B	COD									0.377	A		A	0.423	A		
3B3	BT2	NONE	COD	0.161	A	0.234	A	0.341	A	0.09	A	0.098	A	0.051	A	0.075	A	0.004	A
3B3	GN1	NONE	COD												C		C		
3B3	GT1	NONE	COD									0.026	B	0.088	C	0.033	B	0.008	B
3B3	LL1	CPART13B	COD																
3B3	LL1	NONE	COD																
3B3	TR1	CPART13C	COD										C						
3B3	TR1	NONE	COD									0.237	A			0.165	A	0.045	C
3B3	TR2	CPART13B	COD							0.101	C	0.016	C	0.077	C		C		
3B3	TR2	CPART13C	COD							0.514	C	0.023	C	0.195	C				
3B3	TR2	NONE	COD		C			0.008	C			0.184	A	0.04	A	0.085	A	0.161	B
3B3	TR3	NONE	COD									0.063	A			0.057	A		

Table 5.3.2.3 Skagerrak (3b1), North Sea (incl. 2EU; 3b2)), and Eastern Channel (3b3): Landings (t), discards (t) and relative discard rates (R) in weight for cod by unregulated gear, 2006-2013.

Reg_area	Reg_gear	Specon	Species	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R	2013 L	2013 D	2013 R
3B1	**BEAM**	NONE	COD				0	0														0	0				
	DEM_SEINE	NONE	COD	0.244	1.364	0.848							0.002						1.001								
	DREDGE	NONE	COD				1.442						0.081			0.346			0.031			0.004					
	NONE	NONE	COD	5.459			2.684			7.212			20.445			23.801	0		36.856			53.799			21.384		
	OTTER	NONE	COD	173.804			97.007	40.413	0.294	126.613	149.029	0.541	174.704	17.361	0.09	225.829	37.975	0.144	196.271	62.969	0.243	205.341	59.156	0.224	142.033	30.487	0.177
	PEL_TRAWL	NONE	COD	1.195	0.566	0.321	0.559	0.374	0.401	3.123	0.085	0.026	0.167			3.606			1.041			0.879			8.344	0.318	0.037
	POTS	NONE	COD	0.018			0.031			0.131			0.216			1.406	0		2.752			1.242			2.429		
	TR2	CPART11	COD										0.073	4.14	0.983	0.513	12.663	0.961	0.117	1.03	0.898	0.054	10.733	0.995	0.18	26.113	0.993
3B1 total				**180.72**			**101.723**			**137.079**			**195.688**			**255.501**			**238.069**			**261.319**			**174.37**		
3B2	**BEAM**	NONE	COD	32.118			49.485			59.431			113.053	10.271	0.083	51.239	17.017	0.249	14.457			48.326	0.408	0.008	15.826	5.27	0.25
	DEM_SEINE	NONE	COD	3.195			0.573	0.223	0.28				1.739			9.029						19.4			2.649		
	DREDGE	NONE	COD	1.022			1.305			0.517						2.354			1.454			1.724			0.634		
	NONE	NONE	COD	18.508			7.984			9.763			13.428			0.345			3.48			18.362			14.803		
	OTTER	NONE	COD	39.606	3.992	0.092	16.604	10.504	0.387	22.731	31.472	0.581	28.608			33.01			40.844			66.276	2.851	0.041	44.589	0	
	PEL_SEINE	NONE	COD	0.696	0.27	0.28										1.523	0.512	0.252				0.445	0.182	0.29			
	PEL_TRAWL	NONE	COD	36.731	4.935	0.118	32.284			30.437	0.834	0.027	37.023			23.797			14.507			3.639			6.004		
	POTS	NONE	COD	13.988			10.813			6.518			6.762			13.051	0.111	0.008	5.897			6.277			6.194		
	TR1	CPART11	COD																			85.804	7.061	0.076			
	TR2	CPART11	COD													2.222											
3B2 total				**145.864**			**119.048**			**129.397**			**200.613**			**136.57**			**80.639**			**250.253**			**90.699**		
3B3	**BEAM**	NONE	COD	0.077			0.44			0.192			0.176			0.017											
	DEM_SEINE	NONE	COD													1											
	DREDGE	NONE	COD	0.023			1.428			0.126			0.201			0.102			0.072	0		0.149			0.067		
	NONE	NONE	COD				0.139			27.242			27.266														
	OTTER	NONE	COD	5.171			16.883			3.949			3.949			3.72	0.084	0.022	2.571			2.11	0.431	0.17	0.09		
	PEL_SEINE	NONE	COD							0.295			0.295														
	PEL_TRAWL	NONE	COD	5.859			3.518			3.933			3.933			1.909	0		7.786			7.164			2.646		
	POTS	NONE	COD	1.413			0.64			0.004						2.85			1.985			5.168			0.236		
3B3 total				**12.543**			**23.048**			**35.741**			**35.82**			**9.598**			**12.414**			**14.591**			**3.039**		
Grand total				**339.127**			**243.819**			**302.217**			**432.121**			**401.669**			**331.122**			**526.163**			**268.108**		

Table 5.3.2.4 Skagerrak (3b1), North Sea (incl. 2EU; 3b2)), and Eastern Channel (3b3): Relative discard rates (R) in weight and Discard coverage index (DQI) for cod by regulated gear, 2006-2013. Empty cells indicate that no discard information was available.

reg_area	reg_gear	specon	species	2006 R	2006 DQI	2007 R	2007 DQI	2008 R	2008 DQI	2009 R	2009 DQI	2010 R	2010 DQI	2011 R	2011 DQI	2012 R	2012 DQI	2013 R	2013 DQI
3B1	BEAM	NONE	COD				A										A		
3B1	DEM_SEINE	NONE	COD	0.848	A														
3B1	DREDGE	NONE	COD																
3B1	NONE	NONE	COD										C						
3B1	OTTER	NONE	COD			0.294	C	0.541	B	0.09	A	0.144	A	0.243	A	0.224	A	0.177	A
3B1	PEL_TRAWL	NONE	COD	0.321	B	0.401	C	0.026	C									0.037	B
3B1	POTS	NONE	COD										A						
3B1	TR2	CPART11	COD							0.983	A	0.961	A	0.898	A	0.995	A	0.993	A
3B2	BEAM	NONE	COD							0.083	C	0.249	C			0.008	C	0.25	C
3B2	DEM_SEINE	NONE	COD			0.28	A												
3B2	DREDGE	NONE	COD																
3B2	NONE	NONE	COD																
3B2	OTTER	NONE	COD	0.092	C	0.387	C	0.581	C							0.041	C		B
3B2	PEL_SEINE	NONE	COD	0.28	A							0.252	A			0.29	A		
3B2	PEL_TRAWL	NONE	COD	0.118	C			0.027	C										
3B2	POTS	NONE	COD									0.008	C						
3B2	TR1	CPART11	COD													0.076	A		
3B2	TR2	CPART11	COD																
3B3	BEAM	NONE	COD																
3B3	DEM_SEINE	NONE	COD																
3B3	DREDGE	NONE	COD												C				
3B3	NONE	NONE	COD																
3B3	OTTER	NONE	COD									0.022	A			0.17	A		
3B3	PEL_SEINE	NONE	COD																
3B3	PEL_TRAWL	NONE	COD										B						
3B3	POTS	NONE	COD																

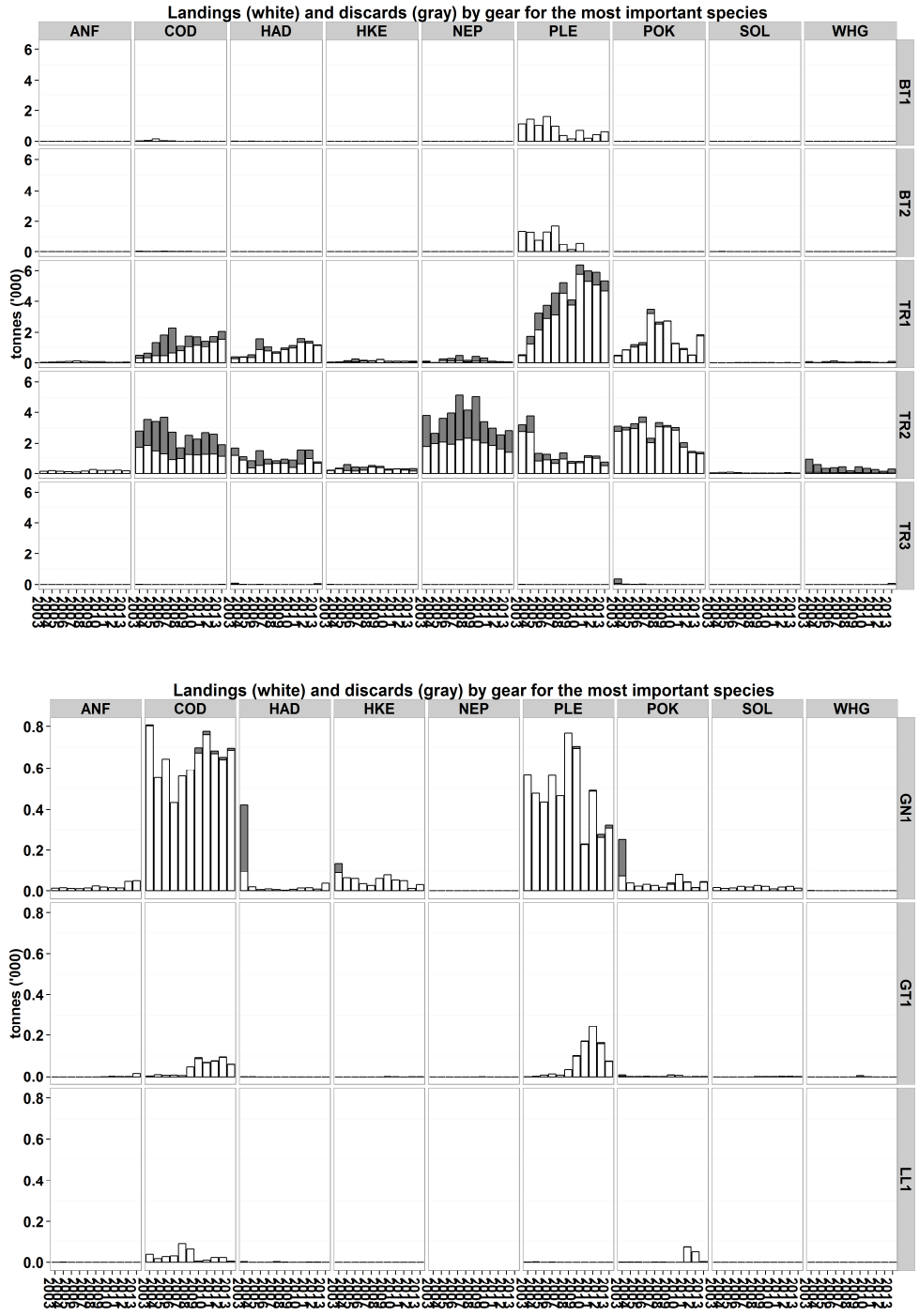


Figure 5.3.2.1; Estimated landings (white bars) and discards (grey bars) of targets species by cod plan gear categories in management area 3b1 (Skagerrak). The upper chart shows the most used gears, the lower chart the remaining gears.

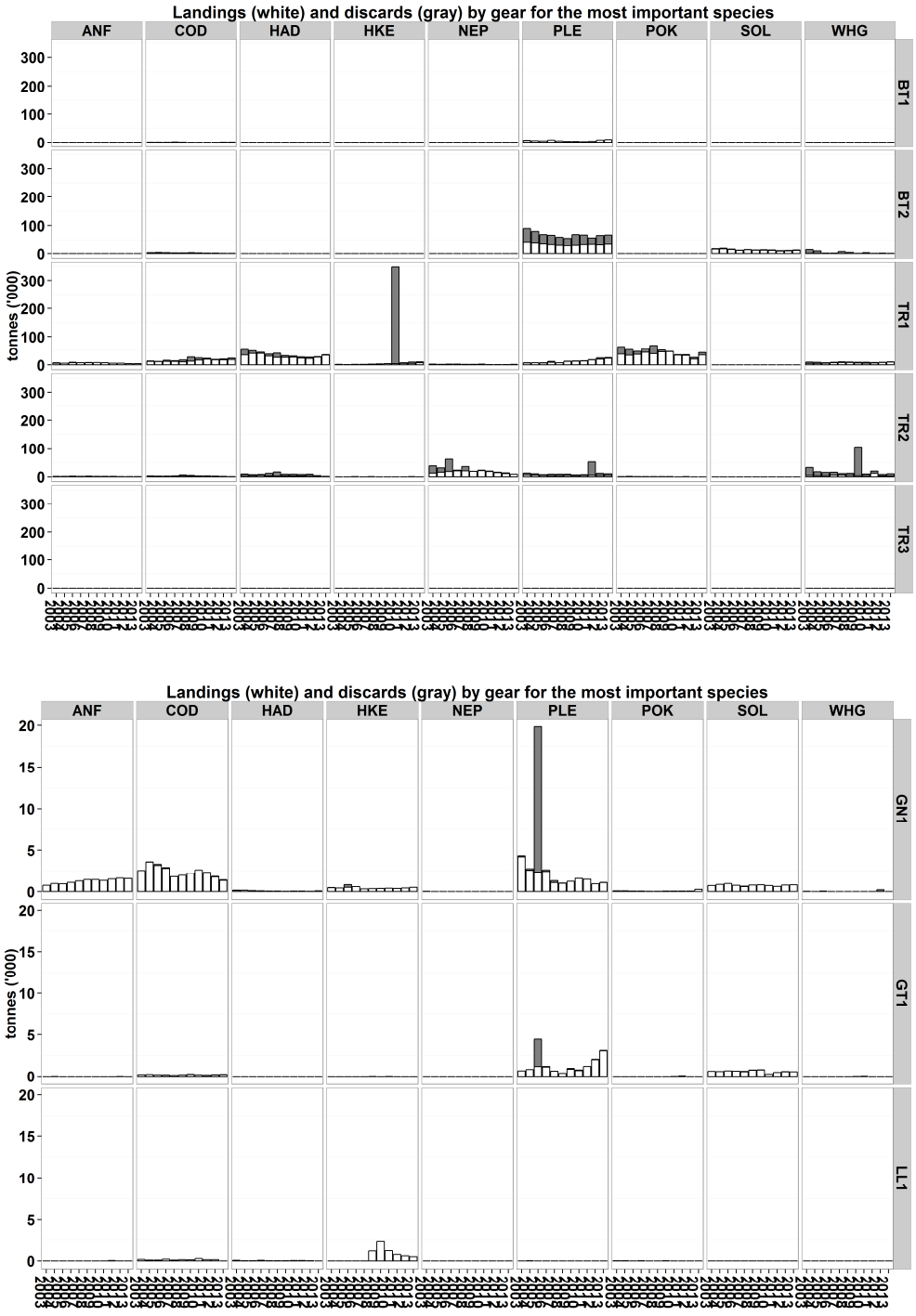


Figure 5.3.2.2; Estimated landings (white bars) and discards (grey bars) of targets species by cod plan gear categories in management area 3b2 (North Sea; 2EU). The upper chart shows the most used gears, the lower chart the remaining gears.

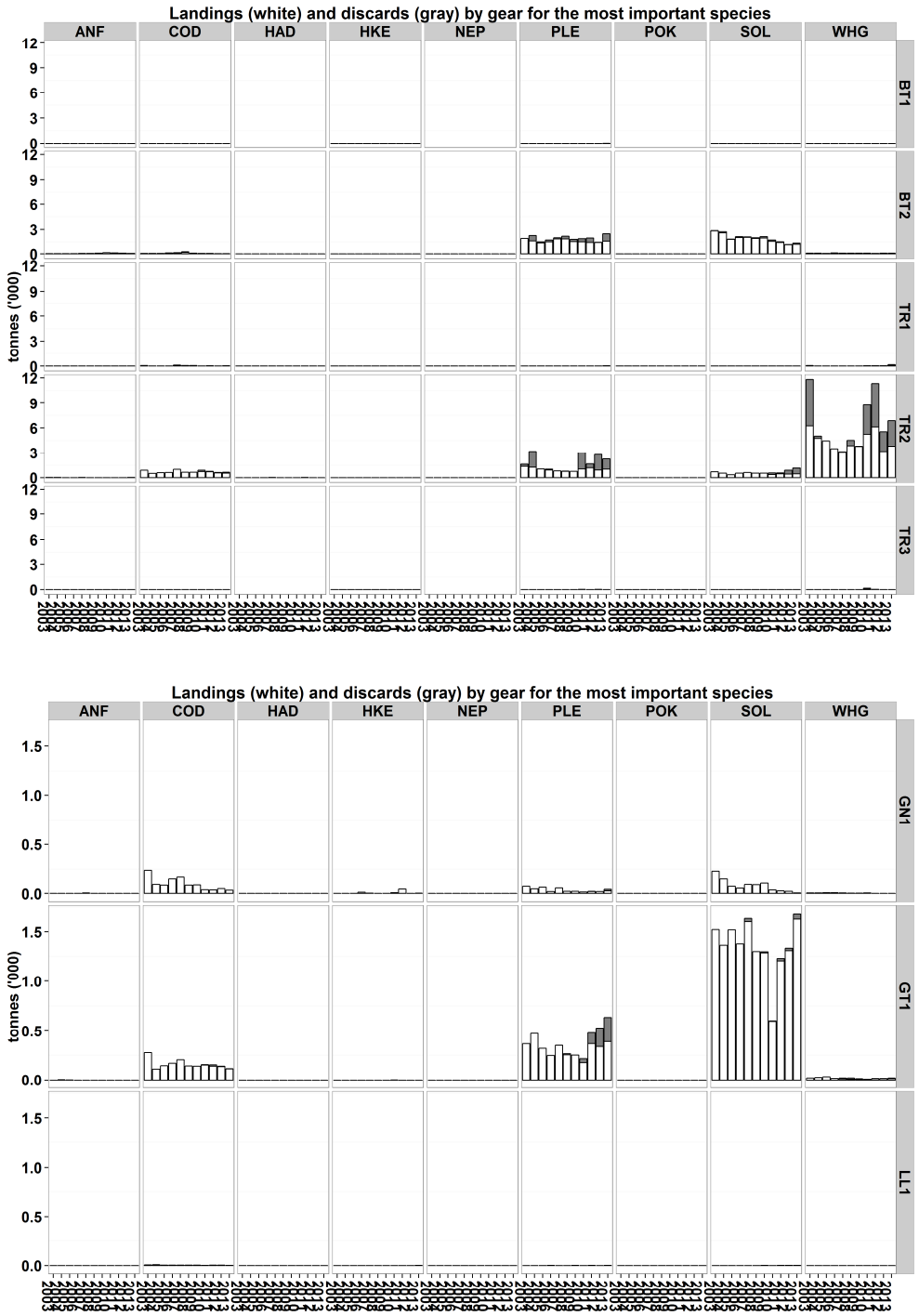


Figure 5.3.2.3; Estimated landings (white bars) and discards (grey bars) of targets species by cod plan gear categories in management area 3b3 (Eastern channel). The upper chart shows the most used gears, the lower chart the remaining gears.

5.3.3 ToR 1.c-d Catches (landings and discards) of non-cod species in weight and numbers at age by fisheries

Estimated landings and discards of haddock, whiting, anglerfish, saithe, hake, Nephrops, plaice and sole by cod plan gear category for the areas 3b1, 3b2 and 3b3 are given in Table 5.3.3.1. The same is given for the unregulated gears in table 5.3.3.2 but for sole and plaice only. Detailed data on age compositions of landings and discards are not given here, but are available on the web site. The same applies to other species. This includes some discard information for pelagic species. As discard information for pelagic species is rather scarce, great care is needed in interpreting the available information.

Information related to the Fully Documented Fishery (FDF) is dealt with specifically in section 5.3.8 further below.

Because of the limited availability and reliability of discard information for some species and from some countries contributing substantially to landings, care is required in the use of these data to draw firm conclusions about catch composition. A discard coverage index (DQI) is presented. The index values for all species in the data call can be found at the website

http://stecf.jrc.ec.europa.eu/web/stecf/ewg1413.

In addition, the procedure used to raise discards and explained in section 4.4 may not be fully consistent with the procedures used in other contexts and therefore may not be directly comparable. In particular, some outliers are visible for the TR2 fisheries. For example, the very large whiting discards estimated for 2009 relates to averaged discard rates from other countries allocated to the large French landings in area IV rather than actual observations, which are missing from France. Also high discard estimates for plaice and sole in the shrimp fishery with unregulated beam trawls (BEAM) in 2012 and 2013 relate to average discard rates applied to the relatively large landings of the Dutch fleet. More examples can be found. These values may not be realistic because of missing discard information from some countries.

A number of figures are included in this report, displaying total landings (white) and discards (grey – when available) in weight for all regulated gears from 2003 to 2013 (Figures 5.3.3.1 - 3).

Anglerfish, and saithe landings have decreased since 2009 while hake landings have increased. Plaice landings have increased and discards remain around the same proportion of the total catch (~40-45%) apart from the outlier in 2011 for TR2. Whitefish landings in TR2 are globally low compared to TR1 landings but discard rates are higher. Nephrops landings have decreased in recent years.

Catches with unregulated gears of sole and plaice are very small compared with the total catch (Table 5.3.3.2).

Numbers at age by fisheries is not dealt with in this section, and can be found at the website http://stecf.jrc.ec.europa.eu/web/stecf/ewg1413.

Table 5.3.3.1 Skagerrak (3b1), North Sea (incl. 2EU; 3b2)), and Eastern Channel (3b3): Landings (t), discards (t) and relative discard rates (R) in weight by species and regulated gear, 2006-2013. Red colour marks serious outliers. DATA FOR OTHER SPECIES ARE AVAILABLE ON STECF WEBSITE.

Species	Reg_area	Reg_gear	Specon	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R	2013 L	2013 D	2013 R
ANF	**3B1**	BT1	NONE	2.807			8.076			3.82			2.026			5.024			0.951			2.981			5.406		
ANF	**3B1**	BT2	NONE	3.094			1.73			4.56			0.817			1.105			0	0							
ANF	**3B1**	GN1	NONE	9.874			12.659			23.311			16.953	0		14.624	0		12.686	0		44.203	0		47.378	0	
ANF	**3B1**	GT1	NONE	0.045						0.265			0.904	0		3.648	0		1.693	0		1.967	0		16.399	0	
ANF	**3B1**	LL1	NONE													0.009			0.035						0.005		
ANF	**3B1**	TR1	CPART13B										0.024			0.006									0.39		
ANF	**3B1**	TR1	NONE	93.08	0.939	0.01	114.143	0.718	0.006	83.159	0.146	0.002	76.984	0.036	0	67.986	0.146	0.002	35.146	0.113	0.003	33.677	0.143	0.004	43.772	1.425	0.032
ANF	**3B1**	TR2	NONE	109.913	1.847	0.017	104.647	1.146	0.011	157.075	0.373	0.002	257.004	0.231	0.001	206.012	0.827	0.004	203.466	0.813	0.004	217.59	1.816	0.008	165.875	2.813	0.017
ANF	**3B1**	TR3	NONE	0.079			0.032						0.23			0.086											
ANF	**3B1 total**			**218.892**			**241.287**			**272.19**			**354.942**			**298.5**			**253.977**			**300.418**			**279.225**		
ANF	**3B2**	BT1	CPART13B													1.64			1.481			1.745			5.042		
ANF	**3B2**	BT1	NONE	228.114	17.56	0.071	228.393			189.346	1.66	0.009	108.474			84.871			110.863	0		146.65			143.499	0.149	0.001
ANF	**3B2**	BT2	CPART13B										0.064			8.511			17.012			7.808			8.282		
ANF	**3B2**	BT2	NONE	55.915	6.628	0.106	59.933	5.22	0.08	51.037	8.786	0.147	27.829	13.377	0.325	43.982	13.477	0.235	41.86	14.081	0.252	21.833			16.425		
ANF	**3B2**	GN1	CPART13B													211.008			241.943			189.406			549.631		
ANF	**3B2**	GN1	NONE	1083.423	0		1272.869			1441.113	0		1448.546			1129.579			1276.929	0		1424.972	0		1035.528	0	
ANF	**3B2**	GT1	NONE	3.371	0		0.489			0.562	0		5.356			1.336			4.414	0		16.609	0.002	0	9.992	0	
ANF	**3B2**	LL1	NONE	0.593			0.011			0.053			0.073			0.24			32.441	0		0.1					
ANF	**3B2**	TR1	CPART13A																			0.049			0.326		
ANF	**3B2**	TR1	CPART13B										294.002			376.482	1.096	0.003	480.743	0.787	0.002	23.095	0.375	0.016	31.503	0.676	0.021
ANF	**3B2**	TR1	CPART13C										5444.018			3652.752	14.959	0.004	3816.125	3.799	0.001	3103.741	15.1	0.005	3200.09	11.086	0.003
ANF	**3B2**	TR1	NONE	6896.56	71.262	0.01	7362.462	225.606	0.03	7649.19	21.989	0.003	1300.352	1.053	0.001	1366.24	6.597	0.005	1212.585	0.702	0.001	1249.212	9.135	0.007	972.538	17.837	0.018
ANF	**3B2**	TR2	CPART13A																			3.616			4.776		
ANF	**3B2**	TR2	CPART13B										535.948			1118.914	621.245	0.357	728.111	1.208	0.002	36.225	2.56	0.066	17.864		
ANF	**3B2**	TR2	CPART13C										690.051			103.723	33.93	0.246	220.319	0.407	0.002	581.842	14.19	0.024	419.419	9.961	0.023
ANF	**3B2**	TR2	NONE	1744.518			1620.325	428.636	0.209	1701.384			138.943	0		58.336	0.02	0	54.498	0.081	0.001	55.968	0.134	0.002	11.711	0.033	0.003
ANF	**3B2**	TR3	NONE	11.186			11.415			1.661			0.216									0.144	0.002	0.014	0.173		
ANF	**3B2 total**			**10023.68**			**10555.897**			**11034.346**			**9993.872**			**8157.614**			**8239.324**			**6863.015**			**6426.799**		
ANF	**3B3**	BT1	NONE							0.036															0.558		
ANF	**3B3**	BT2	CPART13B										0.216			1.665	0.086	0.049	2.179	0.015	0.007	2.606	0.005	0.002	2.078		
ANF	**3B3**	BT2	NONE	23.297	4.062	0.148	48.203	8.433	0.149	48.046	1.429	0.029	61.044	21.786	0.263	127.535	17.826	0.123	94.994	6.568	0.065	58.462	17.559	0.231	49.44	3.404	0.064
ANF	**3B3**	GN1	NONE	0.192			4.157						0.027			0.245			0.727			0.082			0.073		
ANF	**3B3**	GT1	NONE	0.01			0.55			0.108			0.108			0.02			0.51			0.02			0.012		
ANF	**3B3**	LL1	CPART13B																0.075								
ANF	**3B3**	TR1	CPART13B																			0.027			0.002		
ANF	**3B3**	TR1	CPART13C										0.012			0.006									2.096		
ANF	**3B3**	TR1	NONE	1.602			4.441			0.921			0.914			1.517	1.269	0.455	6.11			3.222	0		0.055		
ANF	**3B3**	TR2	CPART13B										0.338			1.864			1.522			1.844			1.576		
ANF	**3B3**	TR2	CPART13C										0.951			0.424			0.937			0.586			0.562		
ANF	**3B3**	TR2	NONE	12.255			18.658			11.774			10.745			2.044	1.844	0.474	5.105	0		6.211	0		18.643		
ANF	**3B3**	TR3	NONE																						0.02		
ANF	**3B3 total**			**37.356**			**76.009**			**60.885**			**74.355**			**135.32**			**112.165**			**73.06**			**75.115**		
ANF total				**10279.928**			**10873.193**			**11367.421**			**10423.169**			**8591.434**			**8605.466**			**7236.493**			**6781.139**		

Table 5.3.3.1 continued

Species	Reg_area	Reg_gear	Specon	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R	2013 L	2013 D	2013 R
HAD	3B1	BT1	NONE	0.175			1.312			0.196			0.025			0.097			0.139			1.026			0.535		
HAD	3B1	BT2	NONE	0.005			0.029			0.026						0.05			0	0							
HAD	3B1	GN1	NONE	8.453			5.078			1.877			6.202	0.095	0.015	12.994	0.008	0.001	14.52	0.033	0.002	8.148	0		35.531	0	
HAD	3B1	GT1	NONE	0.016			0.023			0.055			0.271	0.025	0.084	0.208	0		0.038	0		0.036	0		0.171	0	
HAD	3B1	LL1	NONE				2.77			0.975						0.002			0.51	0		0.548					
HAD	3B1	TR1	CPART13B										5.339	0.15	0.027	0.898	0.005	0.006	0.097			0.26			7.27		
HAD	3B1	TR1	CPART13C																						3.016		
HAD	3B1	TR1	NONE	828.894	756.428	0.477	748.757	274.468	0.268	608.79	79.552	0.116	822.973	100.678	0.109	934.955	216.511	0.188	1349.765	249.852	0.156	1314.993	113.079	0.079	1143.629	36.743	0.031
HAD	3B1	TR2	NONE	518.088	944.998	0.646	625.075	294.28	0.32	651.404	171.203	0.208	642.013	272.029	0.298	382.062	479.509	0.557	616.392	886.488	0.59	960.938	552.856	0.365	660.641	82.273	0.111
HAD	3B1	TR3	NONE	8.398	0.042	0.005	0.015						0.035			0.149	0.006	0.039				0.038			61.481		
HAD	**3B1 total**			**1364.029**			**1383.059**			**1263.323**			**1476.858**			**1331.415**			**1981.461**			**2285.987**			**1912.274**		
HAD	3B2	BT1	CPART13B													0.163			0.059			0.056			0.101		
HAD	3B2	BT1	NONE	92.08	1.899	0.02	122.209			55.41	0.267	0.005	34.499			32.691			51.491	1.062	0.02	59.802			70.776	0.173	0.002
HAD	3B2	BT2	CPART13B													0.617			1.018			1.024			0.132		
HAD	3B2	BT2	NONE	17.056	4.782	0.219	21.457	4.188	0.163	23.131	10.424	0.311	10.39			16.28			55.124	13.137	0.192	19.465			4.567		
HAD	3B2	GN1	NONE	71.988	0		54.98			47.462	0		31.751			55.851			44.439	0.158	0.004	22.447	2.327	0.094	68.747	22.954	0.25
HAD	3B2	GT1	NONE	0.742	0		0.811			1.251	0		1.414			1.529			3.153	0		2.364	0.454	0.161	2.424	2.714	0.528
HAD	3B2	LL1	NONE	65.989			9.077			10.832			13.892			44.454			37.708	0		5.52	0.031	0.006	0.057		
HAD	3B2	TR1	CPART13A																			0.043			0.548		
HAD	3B2	TR1	CPART13B										2862.829	408.865	0.125	1434.372	184.005	0.114	1747.887	360.126	0.171	694.315	6.322	0.009	805.215	10.78	0.013
HAD	3B2	TR1	CPART13C										22247.378	3251.606	0.128	20835.456	3356.594	0.139	19304.579	3569.191	0.156	24396.778	1361.592	0.053	31197.457	1845.747	0.056
HAD	3B2	TR1	NONE	30754.013	6928.444	0.184	25796.818	15425.246	0.374	26006.074	6670.397	0.204	1836.724	105.985	0.055	1406.404	140.35	0.091	1394.242	179.906	0.114	1654.728	322.532	0.163	1988.858	49.051	0.024
HAD	3B2	TR2	CPART13A																			9.183			12.602		
HAD	3B2	TR2	CPART13B										1507.558	2592.852	0.632	2315.011	4655.958	0.668	1617.216	3838.83	0.704	173.315	21.782	0.112	93.773	8.454	0.083
HAD	3B2	TR2	CPART13C										1766.299	2883.761	0.62	308.209	452.698	0.595	536.448	1248.925	0.7	1747.146	1988.775	0.532	1076.928	68.597	0.06
HAD	3B2	TR2	NONE	3468.989	8294.798	0.705	2653.533	13545.14	0.836	2783.538	6030.859	0.684	88.831	0		147.488	2.04	0.014	1552.342	3.029	0.002	96.325	7.986	0.077	26.509	5.875	0.181
HAD	3B2	TR3	NONE	15.119			5.067			0.585			0.719			2.04						0.644	0.208	0.244	0.668		
HAD	**3B2 total**			**34485.976**			**28663.952**			**28928.283**			**30402.284**			**26600.565**			**26345.706**			**28883.155**			**35349.362**		
HAD	3B3	BT2	CPART13B																			0.033			0.005		
HAD	3B3	BT2	NONE	1.003			0.961			0.391			0.72			1.846			1.378	0		2.414			0.629		
HAD	3B3	GN1	NONE				0.044						0.001			0.02			0.001								
HAD	3B3	GT1	NONE																0.06			0.368					
HAD	3B3	LL1	NONE													0.003											
HAD	3B3	TR1	NONE	0.742			2.322			1.067			1.067			9.354	0		8.944			3.719					
HAD	3B3	TR2	CPART13B										0.039			0.625			1.701			0.272			0.069		
HAD	3B3	TR2	CPART13C										0.002			0			0.354			0.029			0.592		
HAD	3B3	TR2	NONE	0.594			14.546			3.737			3.733			2.561	0		23.646	0		10.406			11.488		
HAD	**3B3 total**			**2.339**			**17.873**			**5.195**			**5.562**			**14.409**	**0**		**36.084**			**17.241**			**12.783**		
HAD total				**35852.344**			**30064.884**			**30196.801**			**31884.704**			**27946.389**			**28363.251**			**31186.383**			**37274.419**		

Table 5.3.3.1 continued

Species	Reg_area	Reg_gear	Specon	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R	2013 L	2013 D	2013 R
HKE	3B1	BT1	NONE	3.496			2.075			0.422			0.692			1.55			0.035			0.444			0.38		
HKE	3B1	BT2	NONE	1.158			0.802			1.469			0.346			0	0										
HKE	3B1	GN1	NONE	33.864			25.15			58.796			75.581	0.077	0.001	50.714	0.692	0.013	47.496	0.046	0.001	11.192	0.024	0.002	29.213	0.099	0.003
HKE	3B1	GT1	NONE	0.039			0.037			0.333			2.29	0.036	0.015	1.409	0.016	0.011	0.337	0.001	0.003	0.476	0		0.462	0.001	0.002
HKE	3B1	LL1	NONE							0.002						0.01			0.004								
HKE	3B1	TR1	CPART13B										0.279	0.104	0.272	0.062			0.033			0.16			0.53		
HKE	3B1	TR1	NONE	58.879	191.595	0.765	103.46	52.801	0.338	108.322	23.16	0.176	197.159	19.507	0.09	90.655	16.827	0.157	93.084	2.36	0.025	81.854	20.617	0.201	47.532	60.797	0.561
HKE	3B1	TR2	NONE	159.536	251.777	0.612	211.753	149.169	0.413	416.463	87.621	0.174	368.146	86.548	0.19	217.45	73.86	0.254	281.339	20.188	0.067	216.342	79.589	0.269	153.488	164.163	0.517
HKE	3B1	TR3	NONE	0.422	0.141	0.25	0.063						0.057			0.154											
HKE	**3B1 total**			**257.394**			**343.34**			**585.807**			**644.55**			**362.004**			**422.328**			**310.468**			**231.605**		
HKE	3B2	BT1	CPART13B													0.912			1.502			1.298			0.411		
HKE	3B2	BT1	NONE	66.965	0		61.533			42.495	0		23.553			35.155			30.792	0		21.434			29.405	1.089	0.036
HKE	3B2	BT2	CPART13B													2.549			2.49			1.082			1.109		
HKE	3B2	BT2	NONE	13.525	13.525	0.5	11.687	0.138	0.012	19.666	0		6.068	0		8.203			6.245	0.205	0.032	6.91			2.164		
HKE	3B2	GN1	NONE	578.49	0		328.424			339.082	0		366.777			406.584			379.954	0		424.166	0.179	0	504.859	0	
HKE	3B2	GT1	NONE	1.448	0		0.563			17.702	0		3.705			14.502			3.255	0		4.346	0.008	0.002	7.162	0	
HKE	3B2	LL1	CPART13B																						196.072		
HKE	3B2	LL1	NONE	0.055						1181.891			2311.754			1223.88			766.522	0		605.888	0		293.472		
HKE	3B2	TR1	CPART13B										105.174	18.969	0.153	131.708	126874.351	0.999	121.718	4.516	0.036	153.702	6.51	0.041	779.311	175.188	0.184
HKE	3B2	TR1	CPART13C										1953.752	61.791	0.031	1787.327	216649.098	0.992	2268.751	784.505	0.257	2761.481	4425.535	0.616	3065.968	2965.085	0.492
HKE	3B2	TR1	NONE	1423.062	230.72	0.14	1998.488	345.423	0.147	3129.874	340.92	0.098	1634.304	343.724	0.174	1908.269	672.624	0.261	2039.311	2256.927	0.525	1992.917	321.757	0.139	2939.433	285.109	0.088
HKE	3B2	TR2	CPART13A																			0.987			0.674		
HKE	3B2	TR2	CPART13B										42.145	1.657	0.038	90.197	71.146	0.441	65.304	18.338	0.219	7.422	23.595	0.761	3.083	0.923	0.23
HKE	3B2	TR2	CPART13C										65.835	1.734	0.026	12.614	5.046	0.286	25.729	12.491	0.327	33.372	687.547	0.954	29.035	198.308	0.872
HKE	3B2	TR2	NONE	153.186	22.689	0.129	161.549	251.951	0.609	206.413	0		81.215	0		95.047	18.344	0.162	63.906	1.511	0.023	102.02	0.011	0	22.638	0.303	0.013
HKE	3B2	TR3	NONE	0.603			0.412						0.035									0.245			0.074		
HKE	**3B2 total**			**2237.334**			**2562.656**			**4937.123**			**6594.317**			**5716.947**			**5775.479**			**6117.27**			**7874.87**		
HKE	3B3	BT1	NONE																						0.003		
HKE	3B3	BT2	CPART13B																0.001						0.002		
HKE	3B3	BT2	NONE	0.21			0.502			0.503			0.213			0.357	0		0.12			0.263			0.111		
HKE	3B3	GN1	NONE	12.518			2.321									7.953			43.536			0.033			3.193		
HKE	3B3	GT1	NONE				0.227			0.342			0.342			2.325			0.841			0.695			0.08		
HKE	3B3	LL1	NONE							0.015			0.015						0.055						1.1		
HKE	3B3	TR1	CPART13C										0.003												0.224		
HKE	3B3	TR1	NONE	0.086			7.779			0.105			0.105			2.45	0		2.215			0.83			2.61		
HKE	3B3	TR2	CPART13B										0.009			0.03			0.037			0.514			0.073		
HKE	3B3	TR2	CPART13C										0.014			0.003			0			0	0		0.059		
HKE	3B3	TR2	NONE	0.807			0.32			1.72			1.704			12	0		8.624			1.673			0.314		
HKE	3B3	TR3	NONE																0.02								
HKE	**3B3 total**			**13.621**			**11.149**			**2.685**			**2.405**			**25.118**			**55.449**			**4.008**			**7.769**		
HKE total				**2508.349**			**2917.145**			**5525.615**			**7241.272**			**6104.069**			**6253.256**			**6431.746**			**8114.244**		

Table 5.3.3.1 continued

Species	Reg_area	Reg_gear	Specon	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R	2013 L	2013 D	2013 R
NEP	**3B1**	BT1	NONE																								
NEP	**3B1**	BT2	NONE																								
NEP	**3B1**	GN1	NONE	0.037			0.007			0.065			0									0.024	0				
NEP	**3B1**	GT1	NONE	0.365			0.007			0.037			1.056						0.011			0.022			0.019	0	
NEP	**3B1**	TR1	NONE	116.743	162.424	0.582	136.799	323.026	0.702	56.177	107.845	0.658	109.044	301.885	0.735	103.626	197.662	0.656	17.773	79.37	0.817	10.541	66.253	0.863	19.403	33.743	0.635
NEP	**3B1**	TR2	NONE	1576.869	1508.628	0.489	1805.519	2101.453	0.538	2024.65	1311.943	0.393	2200.118	2863.586	0.566	2021.276	1368.914	0.404	1874.241	1095.686	0.369	1586.046	954.637	0.376	1370.626	1451.176	0.514
NEP	**3B1**	TR3	NONE	0.109			1.623						0.007			2.066	0										
NEP	**3B1 total**			**1694.123**			**1943.955**			**2080.929**			**2310.225**			**2126.968**			**1892.025**			**1596.633**			**1390.048**		
NEP	**3B2**	BT1	CPART13B																			0.001					
NEP	**3B2**	BT1	NONE	1.465			0.235			0.077			0.564						1			2			0.082		
NEP	**3B2**	BT2	CPART13B													3.211			1.647			0.95			0.517		
NEP	**3B2**	BT2	NONE	249.455			351.34			86.909			85.748			78.869			93.953			83.479	154.849	0.65	41.406	3.072	0.069
NEP	**3B2**	GN1	NONE	0.091			0.02			0.114	0		0.079			0.153			0.264	0		0.76	0		0.036	0	
NEP	**3B2**	GT1	NONE													0.008			0.001	0							
NEP	**3B2**	LL1	NONE																								
NEP	**3B2**	TR1	CPART13A																			1.892			2.725	0	
NEP	**3B2**	TR1	CPART13B										204.643	230.021	0.529	285.804	140.484	0.33	273.01	1.455	0.005	8.064			1.841	0	
NEP	**3B2**	TR1	CPART13C										745.491	285.313	0.277	307.024	95.757	0.238	447.131	0.009	0	690.657	2.563	0.004	1029.838	12.601	0.012
NEP	**3B2**	TR1	NONE	1909.59	277.513	0.127	1721.317	240.552	0.123	1562.74	456.286	0.226	426.474	226.642	0.347	324.757	100.425	0.236	365.853	0.821	0.002	274.23	93.025	0.253	263.704	19.85	0.07
NEP	**3B2**	TR2	CPART13A																			98.396			364.243	0	
NEP	**3B2**	TR2	CPART13B										10006.927	0		15432.832	995.584	0.061	9865.207	163.516	0.016	1651.387	44.973	0.027	578.663	10.393	0.018
NEP	**3B2**	TR2	CPART13C										9647.1	0		1665.298	61.749	0.036	2382.541	43.721	0.018	7409.493	181.558	0.024	5516.698	107.643	0.019
NEP	**3B2**	TR2	NONE	20188.724	2864.202	0.124	20580.863	14587.607	0.415	18916.784			1894.91	1026.328	0.351	1342.98	163.487	0.109	2213.472	856.767	0.279	2159.913	1708.55	0.442	1837.213	569.814	0.237
NEP	**3B2**	TR3	NONE	3.506			9.031						7.502									0.014			0.303		
NEP	**3B2 total**			**22352.831**			**22662.806**			**20566.624**			**23019.438**			**19440.936**			**15644.079**			**12381.236**			**9637.269**		
NEP	**3B3**	BT2	NONE	0.004			0.003						0.003			0.001						0.003					
NEP	**3B3**	GN1	NONE													0.15											
NEP	**3B3**	GT1	NONE																			0.08					
NEP	**3B3**	LL1	NONE													0.35											
NEP	**3B3**	TR1	CPART13C																						0.002		
NEP	**3B3**	TR1	NONE	1.463			0.217									3.79			1.68			0.477					
NEP	**3B3**	TR2	NONE	0.025						0.059			0.059			0.288			0.3			0.112			0.04		
NEP	**3B3 total**			**1.492**			**0.22**			**0.059**			**0.062**			**4.579**			**1.98**			**0.672**			**0.042**		
NEP total				**24048.446**			**24606.981**			**22647.612**			**25329.725**			**21572.483**			**17538.084**			**13978.541**			**11027.359**		

Table 5.3.3.1 continued

Species	Reg_area	Reg_gear	Specon	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R	2013 L	2013 D	2013 R
PLE	3B1	BT1	NONE	1596.999			985.36			374.367			158.97			713.909			204.771			432.19			623.107		
PLE	3B1	BT2	NONE	1311.865			1704.634			468.664			136.605			575.091			4								
PLE	3B1	GN1	NONE	563.421			465.842			768.336			694.035	9.459	0.013	226.814	3.272	0.014	487.514	3.906	0.008	261.228	14.723	0.053	306.557	13.686	0.043
PLE	3B1	GT1	NONE	14.14			8.946			34.533			98.83	2.323	0.023	169.318	1.512	0.009	240.941	0.282	0.001	158.231	5.266	0.032	73.444	2.444	0.032
PLE	3B1	LL1	NONE	0.288			0.003						0.007			0.001			0.004	0		0.004					
PLE	3B1	TR1	CPART13B										0.03			0.004									0.05		
PLE	3B1	TR1	NONE	2897.283	849.58	0.227	3120.854	1473.973	0.321	4572.511	661.675	0.126	3757.435	326.732	0.08	5771.623	580.797	0.091	5315.666	668.619	0.112	5093.088	810.135	0.137	4719.148	629.827	0.118
PLE	3B1	TR2	NONE	876.958	348.386	0.284	647.555	180.88	0.218	928.888	313.011	0.252	656.595	122.555	0.157	686.761	95.447	0.122	1032.428	117.7	0.102	975.649	143.292	0.128	503.311	236.35	0.32
PLE	3B1	TR3	NONE	0.992	0.282	0.221	0.74						0.026			0.283			2.204			0.002					
PLE	**3B1 total**			**7261.946**			**6933.934**			**7147.299**			**5502.533**			**8143.804**			**7287.528**			**6920.392**			**6225.617**		
PLE	3B2	BT1	CPART13B													538.772			561.381			1199.603			1668.794		
PLE	3B2	BT1	NONE	8159.899	180.525	0.022	5278.946			3247.869	87.482	0.026	3438.22			2449.693			3383.658			6675.324			7874.564	121.664	0.015
PLE	3B2	BT2	CPART13B										42.562			6616.714	6843.045	0.508	7350.159			7404.298			7588.633	3759.877	0.331
PLE	3B2	BT2	NONE	34694.222	31717.646	0.478	32644.813	26782.638	0.451	30184.305	25124.943	0.454	32125.512	36549.332	0.532	28011.121	25583.744	0.477	28118.23	21149.455	0.429	26733.624	31070.456	0.538	28496.532	27097.423	0.487
PLE	3B2	GN1	NONE	2432.793	170.469	0.065	1057.2	252.381	0.193	994.744	10.063	0.01	1239.747			1607.461	0		1493.237	2.682	0.002	928.761	3.481	0.004	1078.909	5.172	0.005
PLE	3B2	GT1	NONE	1109.665	75.563	0.064	645.428			383.081	0		850.411	111.831	0.116	697.267	61.654	0.081	1189.051	19.216	0.016	1992.995	53.881	0.026	3050.14	55.961	0.018
PLE	3B2	LL1	NONE	0.811			0.003			0.053			0.013			0.61			0.116	0		0.034			0.001		
PLE	3B2	TR1	CPART13A																			0.042					
PLE	3B2	TR1	CPART13B										1814.529	579.075	0.242	3417.161	515.316	0.131	3394.936	450.528	0.117	3431.843	1443.65	0.296	4377.375	1015.149	0.188
PLE	3B2	TR1	CPART13C										3224.991	558.181	0.148	1669.078	347.159	0.172	2537.392	398.01	0.136	3186.94	509.523	0.138	4571.741	437.505	0.087
PLE	3B2	TR1	NONE	9022.475	2577.61	0.222	7083.835	194.068	0.027	11860.648	560.03	0.045	7479.787	24.784	0.003	8669.104	12.772	0.001	11316.657	180.19	0.016	13179.023	2794.251	0.175	13942.71	779.018	0.053
PLE	3B2	TR2	CPART13A																			2.098			6.008		
PLE	3B2	TR2	CPART13B										123.299	124.763	0.503	1288.639	1050.808	0.449	1194.62	2991.963	0.715	1179.257	2512.549	0.681	728.33	1181.474	0.619
PLE	3B2	TR2	CPART13C										975.547	1434.564	0.595	216.805	248.591	0.534	443.011	595.997	0.574	218.704	2271.194	0.912	195.805	464.3	0.703
PLE	3B2	TR2	NONE	4250.473	4101.316	0.491	4072.473	4595.51	0.53	4660.678	3682.35	0.441	3108.531	445.272	0.125	3443.595	713.673	0.172	3650.105	42888.31	0.922	3563.577	2124.588	0.374	4129.607	3651.569	0.469
PLE	3B2	TR3	NONE	22.718			5.762			0.028			0.804			1.054			0.25			4.737	0.021	0.004	12.845		
PLE	**3B2 total**			**59693.056**			**50788.46**			**51331.406**			**54423.953**			**58627.074**			**64632.803**			**69700.86**			**77721.994**		
PLE	3B3	BT1	NONE							3.286												0.09			33.587		
PLE	3B3	BT2	CPART13B										78.062	0.526	0.007	96.927	18.54	0.161	82.871	2.862	0.033	128.377	5.615	0.042	87.804	17.36	0.165
PLE	3B3	BT2	NONE	1516.661	230.568	0.132	1869.09	146.078	0.072	1880.824	316.542	0.144	1485.557	253.865	0.146	1418.839	368.133	0.206	1369.82	534.144	0.281	1320.289	15.285	0.011	1531.293	856.625	0.359
PLE	3B3	GN1	NONE	17.586			53.385			20.664			21.562			14.771			18.074	2.388	0.117	18.082	0		25.922	15.07	0.368
PLE	3B3	GT1	NONE	249.387			352.612	0		256.417	9.168	0.035	254.11			175.348	41.207	0.19	367.996	111.453	0.232	339.727	189.767	0.358	391.163	245.17	0.385
PLE	3B3	LL1	CPART13B													0.015			0.034			0.035			0.004		
PLE	3B3	LL1	NONE	0.602			0.236			0.086			0.578			0.392			0.647			0.204			0.686		
PLE	3B3	TR1	CPART13B																						0.213		
PLE	3B3	TR1	CPART13C										2.939			0.664	0.003	0.004	0.469			0.765			0.105		
PLE	3B3	TR1	NONE	2.44			4.327			5.917			3.772			3.873	5.334	0.579	9.73			4.964	5.084	0.506	22.94	4.554	0.166
PLE	3B3	TR2	CPART13B										4.28	0.123	0.028	26.685	35.921	0.574	14.185	27.642	0.661	61.605	68.091	0.525	103.946	202.901	0.661
PLE	3B3	TR2	CPART13C										29.753	1.223	0.039	14.066	23.937	0.63	20.311	43.058	0.679	19.153	16.169	0.458	26.11	28.699	0.524
PLE	3B3	TR2	NONE	896.63	125.64	0.123	809.457	0		734.653	29.781	0.039	700.799			999.684	1920.379	0.658	1153.16	388.044	0.252	832.256	1780.523	0.681	874.211	1004.944	0.535
PLE	3B3	TR3	NONE	0.236			1.059			0.508			0.508			10.28	8.305	0.447	8.049			4.287	7.168	0.626	2.64		
PLE	**3B3 total**			**2683.542**			**3090.166**			**2902.355**			**2581.92**			**2761.544**			**3045.346**			**2729.834**			**3100.624**		
PLE total				**69638.544**			**60812.56**			**61381.06**			**62508.406**			**69532.422**			**74965.677**			**79351.086**			**87048.235**		

Table 5.3.3.1 continued

Species	Reg_area	Reg_gear	Specon	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R	2013 L	2013 D	2013 R
POK	3B1	BT1	NONE	0.083			0.349			0.093									0.003			0.139			0.006		
POK	3B1	BT2	NONE	0	0		1.035			1			0.018														
POK	3B1	GN1	NONE	29.892			24.979			16.386			30.048	6.88	0.186	77.433	0.823	0.011	40.299	2.123	0.05	13.762	0.948	0.064	40.304	3.156	0.073
POK	3B1	GT1	NONE	3.306			1.639			1.728			8.115	1.984	0.196	7.146	0.248	0.034	0.97	0.392	0.288	1.324	0.874	0.398	1.382	0.656	0.322
POK	3B1	LL1	NONE	0.049			0.514			0.349									72.017	1.047	0.014	49.47			2.592		
POK	3B1	TR1	CPART13B										1396.35	0.002	0	112.52	0.003	0	344.356			128.54	0		745.57		
POK	3B1	TR1	NONE	1175.883	167.423	0.125	3202.678	282.889	0.081	2538.289	120.444	0.045	1324.263	6.894	0.005	1152.35	31.501	0.027	492.309	65.434	0.117	350.356	12.579	0.035	1023.963	75.029	0.068
POK	3B1	TR2	NONE	3356.095	337.159	0.091	2039.933	293.461	0.126	3069.291	273.607	0.082	3043.878	103.412	0.033	2849.377	173.594	0.057	1755.013	290.281	0.142	1331.147	98.884	0.069	1271.915	95.807	0.07
POK	3B1	TR3	NONE	20.881			0.092						1.407			0.34	0.125	0.269							3.807		
POK	3B1 total			4586.189			5271.219			5627.136			5804.079			4199.166			2704.967			1874.738			3089.539		
POK	3B2	BT1	CPART13B													0.003			0.029			0.002			0.01		
POK	3B2	BT1	NONE	10.962	0		11.664			5.568	2.18	0.281	1.468			1.275			2.268	0.244	0.097	1.952			1.748	0.156	0.082
POK	3B2	BT2	CPART13B													0.005			0.059			0.063			0.023		
POK	3B2	BT2	NONE	0.935			0.596	0.014	0.023	0.157			0.094			0.017			0.084			0.053			0.05		
POK	3B2	GN1	NONE	44.838	0		25.692			29.186	3.225	0.1	44.555			54.989			47.862	0.008	0	47.96	0.228	0.005	259.388	15.316	0.056
POK	3B2	GT1	NONE	0.525	0		0.112			0.629	0.012	0.019	2.357			15.763			74.523	0		1.058	0.023	0.021	2.156	0.852	0.283
POK	3B2	LL1	NONE	19.154			2.245			3.112			7.281			4.85			3.599	0		4.181	0.01	0.002	3.177		
POK	3B2	TR1	CPART13B										10837.788	269.326	0.024	9488.086	389.968	0.039	7359.962	342.752	0.044	5932.42	0.19	0	16776.826	64.732	0.004
POK	3B2	TR1	CPART13C										9742.115	276.514	0.028	10515.234	1540.15	0.128	9165.731	2382.391	0.206	7554.596	5544.888	0.423	10481.688	8482.935	0.447
POK	3B2	TR1	NONE	44464.274	12427.232	0.218	39272.577	29302.643	0.427	46058.722	6342.578	0.121	25797.311	40.164	0.002	13723.106	74.03	0.005	16513.891	12.407	0.001	7095.643	67.681	0.009	7201.58	15.056	0.002
POK	3B2	TR2	CPART13A																			0.701			1.668		
POK	3B2	TR2	CPART13B										99.937			192.728	109.612	0.363	137.31	515.37	0.79	2.049			0.07		
POK	3B2	TR2	CPART13C										263.133			24.208	10.726	0.307	94.31	353.89	0.79	140.595	33.79	0.194	160.675	13.51	0.078
POK	3B2	TR2	NONE	371.896	492.406	0.57	664.6	382.163	0.365	547.147	447.071	0.45	51.549	0		4.926	0.005	0.001	29.441	0		6.169	0.015	0.002	1.494	0.027	0.018
POK	3B2	TR3	NONE	61.71			47.785			17.777			0.143									0.002	0		0.975		
POK	3B2 total			44974.294			40025.271			46662.298			46847.731			34025.19			33429.069			20787.444			34891.528		
POK	3B3	BT2	NONE	0.06			0.147			0.009			0.08			0.017			0.099			0.207			0.19		
POK	3B3	GN1	NONE				0.022									0.06											
POK	3B3	GT1	NONE																0.017						0.001		
POK	3B3	LL1	NONE							0.04			0.04												0.07		
POK	3B3	TR1	CPART13C																						0.097		
POK	3B3	TR1	NONE	0.008			0.004			0.002			0.002			15.25			12.2						0.55		
POK	3B3	TR2	CPART13B													0.051			0.119			0.098			0.005		
POK	3B3	TR2	CPART13C										0.085						0.01						0.153		
POK	3B3	TR2	NONE	0.259			0.242			0.757			0.575			1.47	0		1.203			0.775			1.735		
POK	3B3	TR3	NONE																0.06						0.008		
POK	3B3 total			0.327			0.415			0.808			0.782			16.848			13.708						2.809		
POK total				49560.81			45296.905			52290.242			52652.592			38241.204			36147.744			22663.262			37983.876		

Table 5.3.3.1 continued

Species	Reg_area	Reg_gear	Specon	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R	2013 L	2013 D	2013 R
SOL	3B1	BT1	NONE	3.562			3.843			2.94			0.664			1.183			0.159			0.668			2.505		
SOL	3B1	BT2	NONE	5.159			5.24			3.263			0.139			3											
SOL	3B1	GN1	NONE	20.103			17.647			25.411			20.884	0		8.51	0.013	0.002	17.021	0		20.545	0.04	0.002	11.532	0.011	0.001
SOL	3B1	GT1	NONE	0.408			0.365			1.907			2.574	0		2.314	0.003	0.001	3.542	0		3.266	0		1.695	0.001	0.001
SOL	3B1	LL1	NONE	0.004																							
SOL	3B1	TR1	NONE	13.132	1.689	0.114	13.461	0.002	0	15.306	0		9.45	0.007	0.001	11.438	0		7.184	0.014	0.002	12.089	0.074	0.006	6.703	0.494	0.069
SOL	3B1	TR2	NONE	54.976	4.241	0.072	22.079	0.532	0.024	29.269	0.184	0.006	31.223	0.423	0.013	23.178	0		30.659	0.089	0.003	52.708	0.252	0.005	31.175	1.67	0.051
SOL	3B1	TR3	NONE				0.004																				
SOL	**3B1 total**			**97.344**			**62.639**			**78.096**			**64.934**			**49.623**			**58.565**			**89.276**			**53.61**		
SOL	3B2	BT1	CPART13B													2.109			1.033			0.855			1.887		
SOL	3B2	BT1	NONE	61.419	0.852	0.014	31.501			30.107	0.073	0.002	25.235			11.993			14.225	0		21.376			26.919	0.02	0.001
SOL	3B2	BT2	CPART13B										48.002			440.718	39.859	0.083	327.526			247.146			447.858	3.464	0.008
SOL	3B2	BT2	NONE	10877.339	1355.944	0.111	13313.306	782.777	0.056	12114.28	542.051	0.043	12020.643	1440.622	0.107	10511.972	1480.54	0.123	8719.777	1222.041	0.123	9372.282	1915.449	0.17	10594.557	2031.762	0.161
SOL	3B2	GN1	CPART13B																			0.037					
SOL	3B2	GN1	NONE	755.404	0		579.259	53.475	0.085	773.432	0.829	0.001	795.183			720.326			608.662	0		776.168	0		805.239	0	
SOL	3B2	GT1	NONE	633.764	0		551.371	61.368	0.1	754.126	7.301	0.01	779.897	11.908	0.015	265.616	7.006	0.026	486.143	1.129	0.002	568.368	13.859	0.024	552.098	8.325	0.015
SOL	3B2	LL1	NONE	0.002									0			0.075						0.002			0.05		
SOL	3B2	TR1	CPART13B										1.348			1.46	0		1.075			0.828	0		0.771		
SOL	3B2	TR1	CPART13C										8.171	0.007	0.001	4.015	0		4.669			3.103	0.011	0.004	3.875		
SOL	3B2	TR1	NONE	15.485	0		16.964	0.071	0.004	19.098	0		11.849	0.085	0.007	8.495	0		3.399	0		3.421	0.032	0.009	5.591	0.037	0.007
SOL	3B2	TR2	CPART13A																			0.381			0.417		
SOL	3B2	TR2	CPART13B										6.91	0.211	0.03	14.907	0.464	0.03	43.721	1.839	0.04	29.139	1.831	0.059	34.56	1.332	0.037
SOL	3B2	TR2	CPART13C										93.129	2.513	0.026	38.058	1.425	0.036	24.165	0.721	0.029	16.644	1.528	0.084	14.453	0.365	0.025
SOL	3B2	TR2	NONE	151.372	0		187.195	92.516	0.331	340.689	15.228	0.043	173.424	0		163.239	0		143.242	0		81.182	23.969	0.228	95.262	4.181	0.042
SOL	3B2	TR3	NONE	0.415			0.028			0.014			0.015			0.045						0.093			0.375		
SOL	**3B2 total**			**12495.2**			**14679.624**			**14031.746**			**13963.806**			**12183.028**			**10377.637**			**11121.025**			**12583.912**		
SOL	3B3	BT1	NONE							3.668												0.02			14.225		
SOL	3B3	BT2	CPART13B										48.968	0.101	0.002	68.633	5.305	0.072	51.924	0.198	0.004	69.528	0.274	0.004	57.479	0	
SOL	3B3	BT2	NONE	2048.833	93.172	0.043	2052.595	73.346	0.035	1933.623	69.222	0.035	1921.964	168.709	0.081	1517.605	142.493	0.086	1392.38	78.733	0.054	1124.253	1.52	0.001	1164.814	144.819	0.111
SOL	3B3	GN1	NONE	52.619			87.289			86.257			102.538			32.939			24.1	0.659	0.027	21.289	0		4.325	0.021	0.005
SOL	3B3	GT1	NONE	1377.308			1610.743	30.083	0.018	1299.16	0		1287.374	11.158	0.009	597.912	3.371	0.006	1204.777	25.417	0.021	1308.134	26.296	0.02	1634.121	51.511	0.031
SOL	3B3	LL1	CPART13B													0	0					0.007			0	0	
SOL	3B3	LL1	NONE	0.01						0.01			0.518			0.2			0.96			0.515			2.34		
SOL	3B3	TR1	CPART13C										0.103			0.045			0.037			0.057			0.02		
SOL	3B3	TR1	NONE	2.397			0.322			2.361			2.164			1.14	0.79	0.409	5.637			0.317	0.391	0.552	0.191		
SOL	3B3	TR2	CPART13B										2.078	0		0.339	0.01	0.029	1.929	0.138	0.067	56.482	39.821	0.413	83.561	161.53	0.659
SOL	3B3	TR2	CPART13C										5.486	0.032	0.006	3.2	0.034	0.011	4.724	0.199	0.04	3.614	0.002	0.001	9.141		
SOL	3B3	TR2	NONE	544.431	0		606.514	8.169	0.013	524.614			536.624			381.379	173.025	0.312	452.072	100.673	0.182	373.179	413.729	0.526	357.611	543.198	0.603
SOL	3B3	TR3	NONE	0.355			0.875			5.571			5.571			2.961	0.005	0.002	4.048			1.686	0.189	0.101	2.18		
SOL	**3B3 total**			**4025.953**			**4358.338**			**3855.264**			**3913.388**			**2606.353**			**3142.588**			**2959.081**			**3330.008**		
SOL total				**16618.497**			**19100.601**			**17965.106**			**17942.128**			**14839.004**			**13578.79**			**14169.382**			**15967.53**		

Table 5.3.3.1 continued

Species	Reg_area	Reg_gear	Specon	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R	2013 L	2013 D	2013 R
WHG	3B1	BT1	NONE				0.008									0	0										
WHG	3B1	BT2	NONE	0	0																						
WHG	3B1	GN1	NONE	0.168			0.203			0.049			0.011	0.303	0.965	0.018	0.471	0.963	0.01	0.181	0.948	0.071	0.324	0.82	0.075	0.09	0.545
WHG	3B1	GT1	NONE	0.142			0.311			0.406			0.165	5.771	0.972	0.023	0.643	0.965	0.02	0.02	0.5	0.002	0.002	0.5	0.003		
WHG	3B1	LL1	NONE	0.002																							
WHG	3B1	TR1	CPART13B										0.002			0.002									0.15		
WHG	3B1	TR1	NONE	7.948	102.582	0.928	10.56	40.349	0.793	6.246	19.653	0.759	6.55	63.845	0.907	8.219	49.016	0.856	4.905	21.701	0.816	3.99	18.475	0.822	5.711	87.285	0.939
WHG	3B1	TR2	NONE	37.185	332.671	0.899	50.619	344.489	0.872	43.313	122.888	0.739	58.616	375.565	0.865	41.102	287.895	0.875	35.344	224.699	0.864	27.347	111.222	0.803	28.816	253.435	0.898
WHG	3B1	TR3	NONE	0.014												0.003	0.008	0.727				0.365			65.481		
WHG	**3B1 total**			**45.459**			**61.701**			**50.014**			**65.344**			**49.367**			**40.279**			**31.775**			**100.236**		
WHG	3B2	BT1	CPART13B													0.071			0.028			0.008					
WHG	3B2	BT1	NONE	7.343	1.142	0.135	2.937			0.749	0.225	0.231	0.869			1.015			0.33	1.594	0.828	0.737			1.636	1.783	0.521
WHG	3B2	BT2	CPART13B										1.446			14.51	29.601	0.671	9.958			6.207			4.583	0.22	0.046
WHG	3B2	BT2	NONE	610.716	872.713	0.588	422.908	6481.213	0.939	423.53	3899.62	0.902	436.771	481.759	0.524	401.037	2702.454	0.871	404.727	916.894	0.694	274.008	1657.125	0.858	232.347	621.577	0.728
WHG	3B2	GN1	NONE	5.868	0		14.187			2.273	0		2.3			4.819	0.632	0.116	2.723	6.596	0.708	1.657	207.663	0.992	0.758	1.291	0.63
WHG	3B2	GT1	NONE	3.851	0.547	0.124	2.474			1.179	0.002	0.002	3.174	13.078	0.805	9.888	31.033	0.758	7.014	0.327	0.045	1.382	6.992	0.835	1.082	0.916	0.458
WHG	3B2	LL1	CPART13B										0.001														
WHG	3B2	LL1	NONE	0.115			0.172			0.316			0.095			0.17			0.074	0		0.041			0.04		
WHG	3B2	TR1	CPART13A																			0.3					
WHG	3B2	TR1	CPART13B										446.759	145.823	0.246	444.003	214.213	0.325	427.002	71.295	0.143	129.573	32.639	0.201	84.076	65.52	0.438
WHG	3B2	TR1	CPART13C										6094.85	1762.201	0.224	5282.22	2423.337	0.314	6094.238	918.893	0.131	7476.178	768.782	0.093	9152.627	955.638	0.095
WHG	3B2	TR1	NONE	7513.277	1531.779	0.169	8266.876	1903.679	0.187	7794.826	2114.487	0.213	176.941	68.475	0.279	240.88	305.869	0.559	247.244	60.199	0.196	163.803	84.166	0.339	214.658	80.814	0.274
WHG	3B2	TR2	CPART13A																			15.366			26.39		
WHG	3B2	TR2	CPART13B										735.516	384.126	0.343	1293.62	2767.289	0.681	1303.703	2130.761	0.62	194.075	477.769	0.711	168.029	260.162	0.608
WHG	3B2	TR2	CPART13C										1174.06	587.081	0.333	419.039	433.796	0.509	700.549	1068.727	0.604	1627.927	1524.652	0.484	1325.402	804.956	0.378
WHG	3B2	TR2	NONE	6596.165	9072.999	0.579	6640.627	4277.109	0.392	4757.452	7438.414	0.61	2353.489	99627.287	0.977	2506.079	1743.086	0.41	9418.077	5329.994	0.361	1642.519	2216.365	0.574	924.433	6435.989	0.874
WHG	3B2	TR3	NONE	5.636			10.871			0.858			0.281			48.888			3.9			74.054			191.252		
WHG	**3B2 total**			**14742.971**			**15361.052**			**12981.183**			**11426.552**			**10666.239**			**18619.567**			**11607.835**			**12327.313**		
WHG	3B3	BT1	NONE							0.1															0.283		
WHG	3B3	BT2	CPART13B										0.407	0.017	0.04	0.351	0.997	0.74	0.194	0.206	0.515	0.167	0.252	0.601	0.094		
WHG	3B3	BT2	NONE	76.679	24.584	0.243	78.504	9.6	0.109	70.26	22.114	0.239	70.671	8.677	0.109	69.309	24.095	0.258	58.523	12.228	0.173	47.613	28.754	0.377	64.428	29.558	0.314
WHG	3B3	GN1	NONE	6.384			4.259			2.002			2.369			4.333			0.882			0.983	0.028	0.028	1.052		
WHG	3B3	GT1	NONE	16.638			10.399	10.567	0.504	8.262	11.872	0.59	8.22	4.536	0.356	5.781	2.082	0.265	12.948	3.076	0.192	13	3.002	0.188	12.705	6.383	0.334
WHG	3B3	LL1	NONE	0.001			0.016			0.026			0.041			0.189			0.144			0.1					
WHG	3B3	TR1	CPART13B																			0.425					
WHG	3B3	TR1	CPART13C										0.467			0.787			0.05			0.211			1.37		
WHG	3B3	TR1	NONE	3.018			10.699			5.524			5.006			8.16	7.613	0.483	36.868			11.775	6.788	0.366	113.544	40.606	0.263
WHG	3B3	TR2	CPART13B										52.473	15.461	0.228	209.429	512.224	0.71	227.197	100.806	0.307	219.44	246.14	0.529	358.687	279.507	0.438
WHG	3B3	TR2	CPART13C										43.171	15.884	0.269	12.279	21.272	0.634	20.286	24.213	0.544	30.622	73.004	0.704	92.698	5.244	0.054
WHG	3B3	TR2	NONE	3488.473	0		3002.035	146.173	0.046	3835.058	685.877	0.152	3677.77			5005.566	2998.366	0.375	5869.287	5076.147	0.464	2931.169	2035.256	0.41	3352.931	2763.213	0.452
WHG	3B3	TR3	NONE	0.015			0.325			1.909			1.909			110.86	51.946	0.319	18.637			5.836	3.871	0.399	0.75	0.01	0.013
WHG	**3B3 total**			**3591.208**			**3106.237**			**3923.141**			**3862.504**			**5427.044**			**6245.016**			**3261.341**			**3998.542**		
WHG total				**18379.638**			**18528.99**			**16954.338**			**15354.4**			**16142.65**			**24904.862**			**14900.951**			**16426.091**		

Table 5.3.3.2 Skagerrak (3b1), North Sea (incl. 2EU; 3b2)), and Eastern Channel (3b3): Landings (t), discards (t) and relative discard rates (R) in weight by species and unregulated gear, 2006-2013. Red colour marks serious outliers. DATA FOR OTHER SPECIES ARE AVAILABLE ON STECF WEBSITE.

Species	Reg_area	Reg_gear	Specon	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R	2013 L	2013 D	2013 R
PLE	3B1	BEAM	NONE				32															10					
PLE	3B1	DEM_SEINE	NONE	0.873	0.233	0.211							0.873						0.322								
PLE	3B1	DREDGE	NONE										0.076			0.15			3.718			0.027					
PLE	3B1	NONE	NONE	4.124			9.9			1.931			0.113			0.118			13.655			5.633			1.505		
PLE	3B1	OTTER	NONE	5.46			5.878	180.552	0.968	8.827	0.268	0.029	3.312	0.532	0.138	17.523	5.198	0.229	1.674	2.578	0.606	5.001	2.346	0.319	2.729	1.469	0.35
PLE	3B1	PEL_TRAWL	NONE	0.055	0.008	0.127	0.045	0.01	0.182	1.019	0.084	0.076	0.093			0.005			0.91			0.003			0.117	0.021	0.152
PLE	3B1	POTS	NONE							0	0		0														
PLE	3B1	TR2	CPART11										1.981	31.547	0.941	0.675	35.28	0.981	0.971	45.845	0.979	0.801	19.514	0.961	1.067	56.532	0.981
PLE	3B1		IIA83B	6.149	11.685	0.655	2.701	69.182	0.962	1.872	72.861	0.975															
PLE	**3B1 total**			**16.661**			**50.524**			**13.649**			**6.448**			**18.471**			**21.25**			**21.465**			**5.418**		
PLE	3B2	BEAM	NONE	70.128			103.682			3.6			21.153	163.856	0.886	85.057	21.58	0.202	58.429	134.534	0.697	47.467	9381.791	0.995	57.307	149.667	0.723
PLE	3B2	DEM_SEINE	NONE	4.667			2			0	0		2.006			10						8.943			0.84		
PLE	3B2	DREDGE	NONE	0.523			0.519			3.754			0.028			10.552	3.63	0.256	1.092			0.509			1.163		
PLE	3B2	NONE	NONE	20.128			54.395			11.555			16.103			1.424			5.642			11.496			1.053		
PLE	3B2	OTTER	NONE	3.872			21.891			3.006			6.412			226.537			8.418	0.426	0.048	94.593	0.103	0.001	1.23		
PLE	3B2	PEL_SEINE	NONE	0.064												0.032											
PLE	3B2	PEL_TRAWL	NONE	4.023	0		0.005			6.652	0.032	0.005	4.051			0.38			0.473			4.21			22.44		
PLE	3B2	POTS	NONE	0.219			0.058			0.017			0.126			0.697	0.003	0.004	0.529			0.165			0.047		
PLE	3B2	TR2	CPART11													0.525			0.08								
PLE	**3B2 total**			**103.624**			**182.55**			**28.584**			**49.879**			**335.204**			**74.663**			**167.383**			**84.08**		
PLE	3B3	BEAM	NONE	1.889			5.822			8.023			5.036			4.613			1.615			3.97			0.538		
PLE	3B3	DEM_SEINE	NONE													2											
PLE	3B3	DREDGE	NONE	6.201			2.151			3.312			8.043			10.601			7.227	5.791	0.445	4.989	28.909	0.853	10.424		
PLE	3B3	NONE	NONE	0.228			0.431			4.337			4.624														
PLE	3B3	OTTER	NONE	32.027			6.011			3.048			3.048			8.44	11.631	0.579	10.507			13.894	16.095	0.537	3.85	3.546	0.479
PLE	3B3	PEL_SEINE	NONE							0.293			0.293														
PLE	3B3	PEL_TRAWL	NONE	5.967			2.197			9.898			9.898			9.07	0.162	0.018	12.985	13.446	0.509	27.657	2.05	0.069	9.034		
PLE	3B3	POTS	NONE	0.504			0.506									8.19			4.605			10.171			0.348		
PLE	**3B3 total**			**46.816**			**17.118**			**28.911**			**30.942**			**42.914**			**36.939**			**60.681**			**24.194**		
PLE total				**167.101**			**250.192**			**71.144**			**87.269**			**396.589**			**132.852**			**249.529**			**113.692**		

Table 5.3.3.2 continued

Species	Reg_area	Reg_gear	Specon	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R	2013 L	2013 D	2013 R
SOL	3B1	BEAM	NONE				0	0														0	0				
SOL	3B1	DEM_SEINE	NONE										0.001														
SOL	3B1	DREDGE	NONE	0.047			0.146			0.005			0.003			0.007			0.158			1.58			0.088		
SOL	3B1	NONE	NONE	0.208			0.212			0.215	0		0.016	0		0.04	0.003	0.07	0.047	0		0.012	0		0.035	0	
SOL	3B1	OTTER	NONE				0			0.006	0		0.001						0.003						0	0	
SOL	3B1	PEL_TRAWL	NONE							0.016									0.004								
SOL	3B1	POTS	NONE										0.558	0.466	0.455	0.402	0.141	0.26	0.632	2.785	0.815	0.491	0.262	0.348	0.671	0.749	0.527
SOL	3B1	TR2	CPART11																								
SOL	3B1		IIA83B	1.077	0.165	0.133	2.43	2.058	0.459	0.623	1.864	0.749															
SOL	**3B1 total**			**1.332**			**2.788**			**0.865**			**0.579**			**0.449**			**0.844**			**2.083**			**0.794**		
SOL	3B2	BEAM	NONE	18.429			58.94			11.235			16.453			25.502	23.065	0.475	15.768	0.381	0.024	20.072	483.806	0.96	26.612	16300.496	0.998
SOL	3B2	DEM_SEINE	NONE																								
SOL	3B2	DREDGE	NONE	0.026			0.005			0.009						0.205			0.053			0.006			0.47		
SOL	3B2	NONE	NONE	0.508			1.003			1.211			1.312			0.012			0.006			0.054			0.002		
SOL	3B2	OTTER	NONE	0.059			0.04			0.009			0.003			0.05			0.107			0.032					
SOL	3B2	PEL_TRAWL	NONE	0.001						0.134	0					0.05			0.05			0.5			0.01		
SOL	3B2	POTS	NONE	0.007			0.442			0.01			0.144			0.07			0.014			0.652			0.063		
SOL	3B2	TR2	CPART11													0	0										
SOL	**3B2 total**			**19.03**			**60.43**			**12.608**			**17.912**			**25.889**			**15.998**			**21.316**			**27.157**		
SOL	3B3	BEAM	NONE	6.503			6.806			7.798			8.041			4.649			1.19			2.47			1.076		
SOL	3B3	DREDGE	NONE	5.33			4.958			3.743			6.696			14.355			8.65	0.352	0.039	6.617	0.101	0.015	4.484		
SOL	3B3	NONE	NONE	1.891			0.643			9.496			9.538														
SOL	3B3	OTTER	NONE	47.339			19.365			20.06			20.06			13.9	9.903	0.416	9.197			16.627	5.152	0.237	4.87	0.705	0.126
SOL	3B3	PEL_TRAWL	NONE	14.087			4.886			16.624			16.624			12.383	0.685	0.052	14.795			27.492	0		10.536		
SOL	3B3	POTS	NONE	0.357			1.257			0.053			0.004			5.29			3.151			16.948			0.652		
SOL	**3B3 total**			**75.507**			**37.915**			**57.774**			**60.963**			**50.577**			**36.983**			**70.154**			**21.618**		
SOL total				**95.869**			**101.133**			**71.247**			**79.454**			**76.915**			**53.825**			**93.553**			**49.569**		

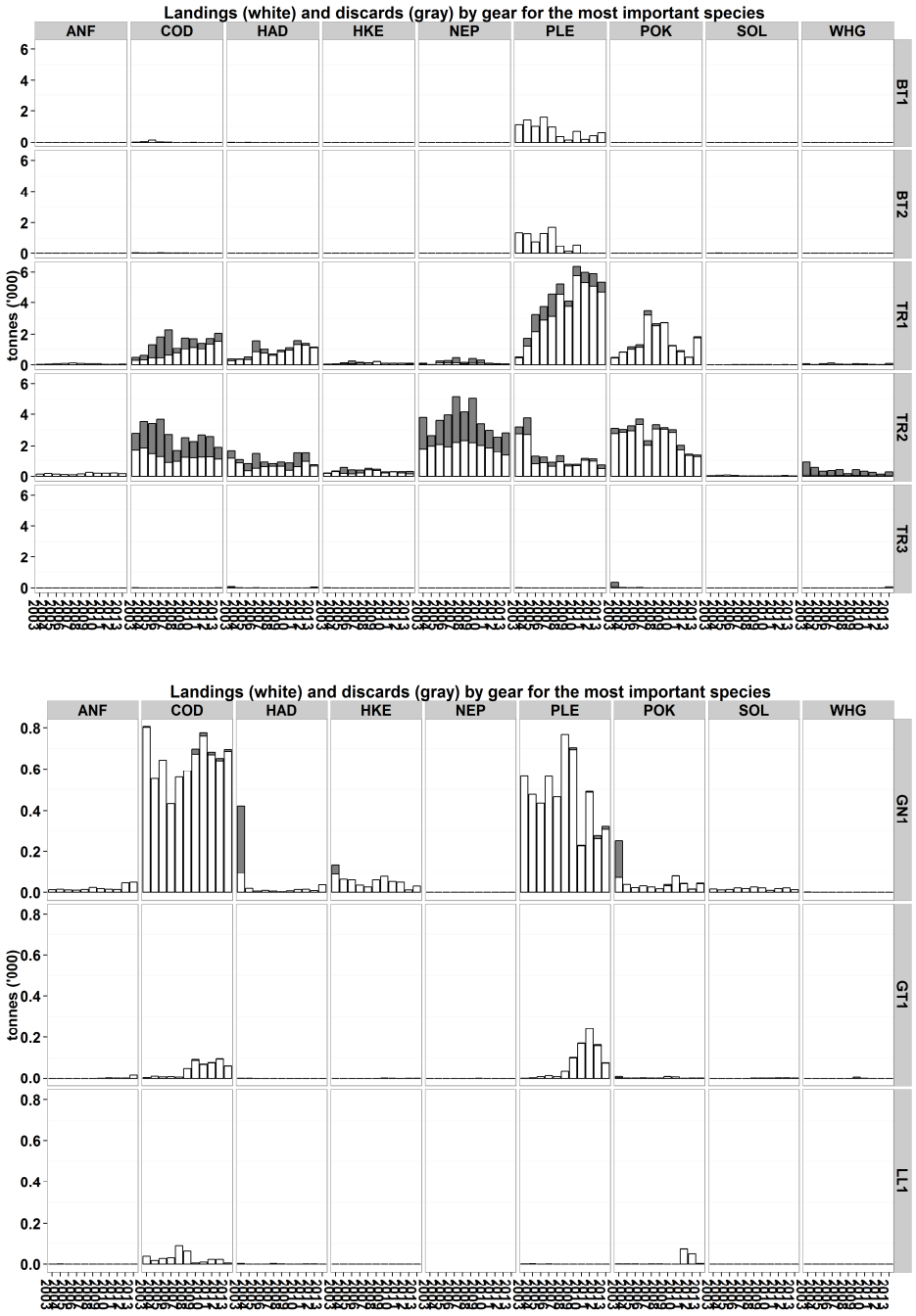


Figure 5.3.3.1; Estimated landings (white bars) and discards (grey bars) of targets species by cod plan gear categories in management area 3b1 (Skagerrak). The upper chart shows the most used gears, the lower chart the remaining gears. The lack of discard information for a given species/gear in this figure may represent no information rather than zero discards.

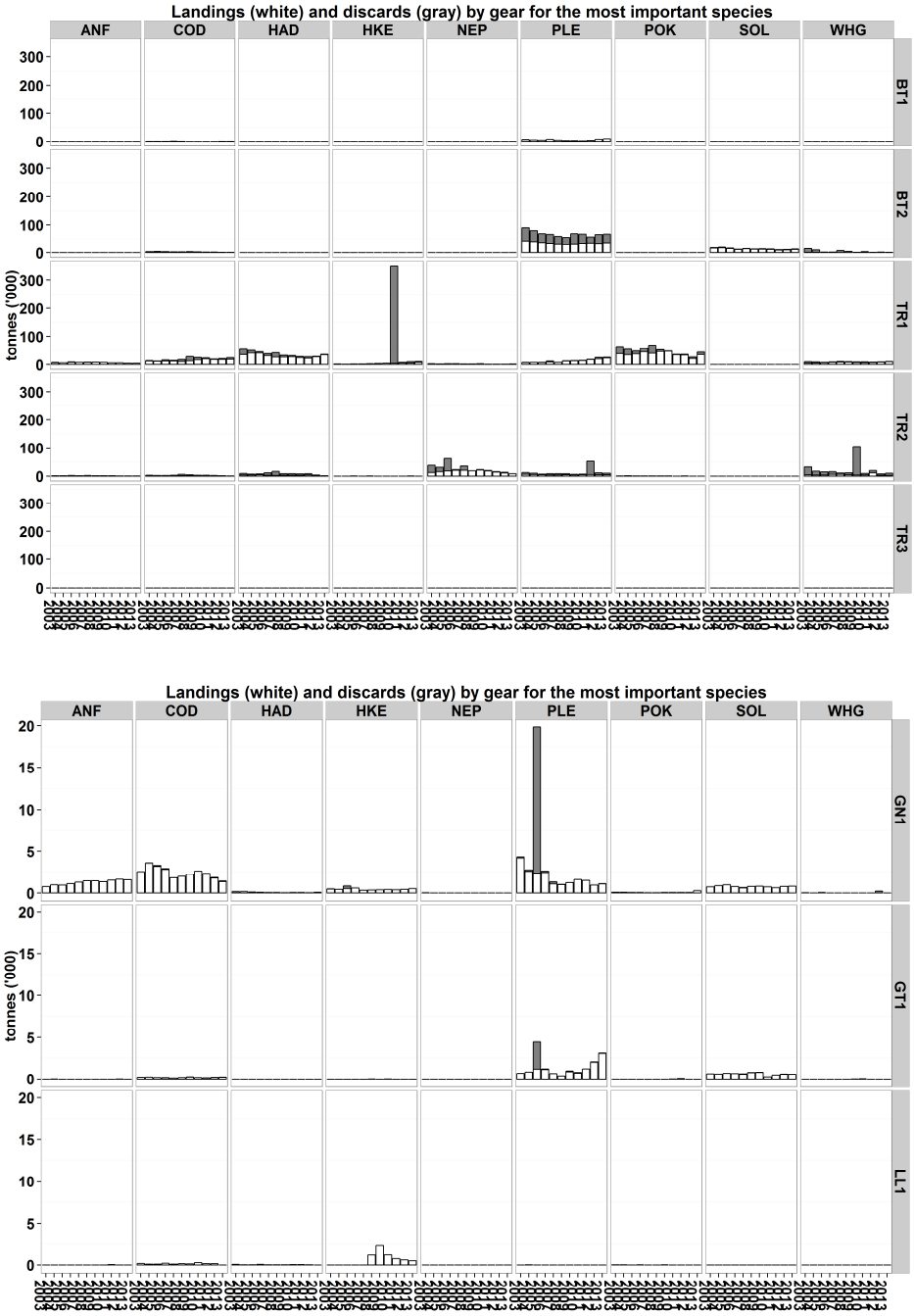


Figure 5.3.3.2; Estimated landings (white bars) and discards (grey bars) of targets species by cod plan gear categories in management area 3b2 (North Sea; 2EU). The upper chart shows the most used gears, the lower chart the remaining gears. The lack of discard information for a given species/gear in this figure may represent no information rather than zero discards.

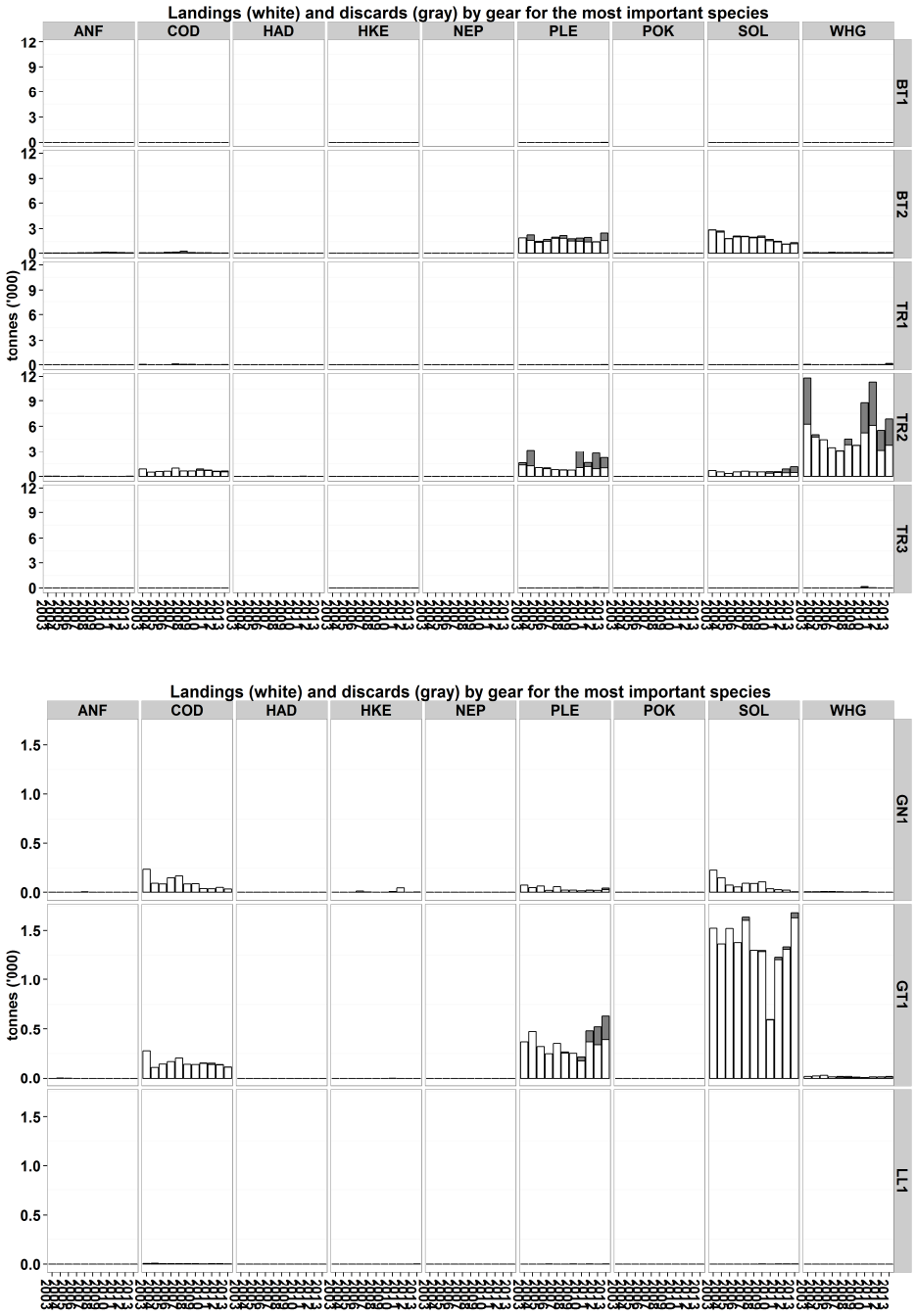


Figure 5.3.3.3; Estimated landings (white bars) and discards (grey bars) of targets species by cod plan gear categories in management area 3b3 (Eastern channel). The upper chart shows the most used gears, the lower chart the remaining gears. The lack of discard information for a given species/gear in this figure may represent no information rather than zero discards.

5.3.4 ToR 1.e CPUE and LPUE of cod, plaice, and sole by fisheries and by Member States

Catch rates for cod, plaice and sole in g/KW-day for the regulated cod categories are given in tables 5.3.4.1 – 5.3.4.3. In some cases the data refer to landings only, depending on whether discard data were available. In the context of possible effort management measures, it is useful to summarise the impact of each gear category in terms of the relative quantity removed per unit of effort. Using this approach, the CPUE for a given gear, when compared with the CPUE of another gear for the same period, can be used as a proxy for the relative fishing power of the gear. In addition, CPUE and LPUE by year are plotted (Figure 5.3.4.1 – 5.3.4.3) by species for the first four gear categories (when ranked by 2011-2013 average) for areas 3b1, 3b2 and 3b3 separately.

For cod (Table 5.3.4.1), CPUE for most gears has increased in the Skagerrak (area 3b1) in 2013 when compared to 2009 (when the cod management plan was implemented). Only LL1 shows a strong decrease, however, the absolute landings from this gear category are small. TR1 CPart13C shows the highest CPUE, this seems rather strange, but was not investigated further. It is followed by GN1, TR1 (specon NONE) and GT1.

In area 3b2 (North Sea; 2EU) TR1 CPart13c shows the highest CPUE for cod of all gear categories, including the TR1 none category. This appears counter-intuitive but may reflect the fact that the major cod catching fleets under SPECON 13c (primarily Scotland) are operating in more northerly waters where cod is more abundant, while the TR1 none and TR1 CPart13b fleets are operating in more southerly waters or target other species (e.g., saithe). The CPUE for TR1 CPart13c is substantially higher in 2013 compared to 2009. The strong decrease for LL1 is remarkable. As the figures for previous years are consistent with last year's report, it is assumed that the calculation is correct. The decrease was not investigated further. Many other gear categories show a stable or decreasing trend (e.g., TR1 none and CPart13b, TR2 none and TR2 CPart13b+c, BT2, GN1). This is somehow unexpected as increasing cod abundance would suggest increased catch rates also for these categories. However, it is in line with ICES assessments showing only a moderate recovery of cod but it may also show improved cod avoidance and again differences in stock trends between the northern and southern part of the North Sea.

In area 3b3 (eastern channel) GN1 and TR1 show by far the highest CPUE for cod compared to other gear categories. Both categories have a substantially lower CPUE in 2013 compared to 2009. However, the CPUE for TR2, the gear category with the highest cod catches, is higher in 2013 than in 2009.

With regards to flatfish, it should be noted that plaice and sole in the Skagerrak (3b1) are considered as part of the same stocks as plaice and sole in the Kattegat (management area 3a). Both stocks are considered as being distinct from the North Sea stocks, as are plaice and sole in the Eastern Channel (3b3). Notwithstanding this, large increases in catch rates for plaice have been observed in 2013 compared to 2009 for the main gears (BT1, BT2, TR1, TR2; Table 5.3.4.2) which reflects a general increasing trend over the time series which is also supported by a rapidly increasing stock biomass from the assessment (ICES, 2014). Outliers in CPUE can be linked to outliers in discard estimates. For example, the high estimate of CPUE in 2011 for 'TR2 none' arises because of a very high discard estimate of 22,000t of plaice in the Dutch TR2 fishery, some 22 times higher than other estimates in recent years and unlikely to be a representative value.

CPUE for sole (Table 5.3.4.3) is highest for passive gears (GT1 and GN1) and small mesh beam trawls (BT2) in 2013. CPUE for the dominant gear in terms of absolute landings (BT2) has increased slightly in area 3b3 in 2013 compared to 2012; this also applies to area 3b2.

Tables showing LPUE and CPUE by gear groups (regulated and unregulated), area and nation are not presented in this report but are available on the JRC website:
http://stecf.jrc.ec.europa.eu/web/stecf/ewg1413.

Table 5.3.4.1 Skagerrak, North Sea (incl. 2EU) and Eastern Channel. Cod CPUE (g/(kW*days)) by regulated gear category and year, 2004-2013, presented for the wider North Sea (3b) and by area (3b1, 3b2, 3b3) in ascending order with regards to CPUE 2013.

species	reg_area	reg_gear	specon	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2011-2013
COD	3B	LL1	CPART13B	0	0	0	0	0				0		0
COD	3B	TR1	CPART13A	0	0	0	0	0	0	0	0	0		0
COD	3B	GN1	CPART13B	0	0	0	0	0	0				6	2
COD	3B	TR2	CPART13A	0	0	0	0	0	0	0	0	0	8	6
COD	3B	BT1	CPART13B	0	0	0	0	0	0	5	18	10	2	7
COD	3B	TR3	NONE	5	7	4	4	1	3	15	8	5	16	11
COD	3B	BT2	CPART13B	0	0	0	0	0	32	17	17	13	9	13
COD	3B	BT2	NONE	61	49	50	43	89	69	57	45	42	24	37
COD	3B	TR2	CPART13B	0	0	0	0	0	89	160	109	30	32	83
COD	3B	TR1	CPART13B	0	0	0	0	0	310	294	153	112	71	105
COD	3B	GT1	NONE	93	79	62	62	98	124	154	131	151	132	138
COD	3B	TR2	CPART13C	0	0	0	0	0	224	236	360	230	114	212
COD	3B	TR2	NONE	158	187	207	286	213	236	281	315	274	243	280
COD	3B	BT1	NONE	231	278	272	209	284	133	203	288	273	471	361
COD	3B	LL1	NONE	315	371	603	459	335	140	529	500	709	41	451
COD	3B	GN1	NONE	971	999	868	832	862	955	1155	1046	908	859	942
COD	3B	TR1	NONE	485	638	601	824	1103	958	933	855	1229	1173	1067
COD	3B	TR1	CPART13C	0	0	0	0	0	1186	1401	1183	1334	1820	1435

species	reg_area	reg_gear	specon	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2011-2013
COD	3B1	BT2	NONE	28	37	62	31	135	181	21	0	0	0	0
COD	3B1	TR1	CPART13B	0	0	0	0	0	25	97	0	62	92	68
COD	3B1	BT1	NONE	96	364	142	64	108	14	105	134	89	40	73
COD	3B1	TR3	NONE	24	13	14	0		54	75	0		121	116
COD	3B1	LL1	NONE	348	656	269	565	1409	5115	4031	655	739	895	711
COD	3B1	TR2	NONE	491	628	775	768	428	700	663	778	890	818	826
COD	3B1	GT1	NONE	547	231	121	112	544	1258	1054	1202	1501	1022	1246
COD	3B1	TR1	NONE	654	848	1151	1221	700	1223	1089	1406	1556	1584	1522
COD	3B1	GN1	NONE	1165	1553	1161	1606	1401	1470	1961	1806	1930	1925	1885
COD	3B1	TR1	CPART13C	0	0	0	0	0	0	0	0	0	3820	3820
COD	3B2	TR1	CPART13A	0	0	0	0	0	0	0	0	0		0
COD	3B2	GN1	CPART13B	0	0	0	0	0	0				6	2
COD	3B2	TR3	NONE	4	7	3	5	0	0	10	5	2	2	3
COD	3B2	TR2	CPART13A	0	0	0	0	0	0	0	0	0	8	6
COD	3B2	BT1	CPART13B	0	0	0	0	0	0	5	18	10	2	7
COD	3B2	BT2	CPART13B	0	0	0	0	0	42	18	17	13	10	13
COD	3B2	BT2	NONE	65	50	51	45	92	73	60	47	45	24	39
COD	3B2	TR2	CPART13B	0	0	0	0	0	90	168	116	40	52	99
COD	3B2	TR1	CPART13B	0	0	0	0	0	323	296	155	112	70	105
COD	3B2	GT1	NONE	217	186	89	72	165	207	233	160	200	202	189
COD	3B2	TR2	NONE	118	148	184	364	267	275	284	332	149	124	210
COD	3B2	TR2	CPART13C	0	0	0	0	0	239	248	382	234	117	218
COD	3B2	BT1	NONE	247	270	281	229	293	137	214	295	283	503	378
COD	3B2	LL1	NONE	624	557	1662	2082	338	157	673	672	1132	13	687
COD	3B2	GN1	NONE	1020	984	878	785	795	894	1073	947	786	697	818
COD	3B2	TR1	NONE	479	625	567	793	1131	919	913	791	1177	1101	1000
COD	3B2	TR1	CPART13C	0	0	0	0	0	1186	1401	1185	1334	1822	1436
COD	3B3	LL1	CPART13B	0	0	0	0	0	0			0		0
COD	3B3	TR1	CPART13C	0	0	0	0	0	230	0	0	0	0	0
COD	3B3	BT2	CPART13B	0	0	0	0	0	28	8	0	7	0	3
COD	3B3	TR3	NONE	0	0		0	15	16	52	16	22	0	13
COD	3B3	TR2	CPART13B	0	0	0	0	0	56	23	17	14	16	16
COD	3B3	BT2	NONE	15	20	28	28	60	26	23	22	17	19	20
COD	3B3	LL1	NONE	41	29	26	20	19	19	15	40	49	18	34
COD	3B3	TR2	CPART13C	0	0	0	0	0	37	67	57	59	51	55
COD	3B3	GT1	NONE	42	44	46	57	54	53	86	81	77	61	73
COD	3B3	BT1	NONE	0	0	0	0	279	0	0	0		88	88
COD	3B3	TR2	NONE	37	47	44	72	57	59	112	95	81	91	89
COD	3B3	TR1	NONE	37	49	198	513	604	578	122	252	172	208	218
COD	3B3	GN1	NONE	245	313	433	414	492	453	266	465	392	303	378

Table 5.3.4.2 Skagerrak, North Sea (incl. 2EU) and Eastern Channel. Plaice CPUE (g/(kW*days)) by regulated gear category and year, 2004-2013, presented for the wider North Sea (3b) and by area (3b1, 3b2, 3b3) in ascending order with regards to CPUE 2013.

species	reg_area	reg_gear	specon	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2011-2013
PLE	3B	LL1	CPART13B	0	0	0	0	0		0	0	0	0	0
PLE	3B	TR1	CPART13A	0	0	0	0	0	0	0	0	0		0
PLE	3B	LL1	NONE	37	3	5	0	0	1	0	0	0	5	1
PLE	3B	TR3	NONE	5	8	12	7	0	1	16	20	27	15	19
PLE	3B	TR2	CPART13A	0	0	0	0	0	0	0	0	22	24	24
PLE	3B	TR2	CPART13C	0	0	0	0	0	410	387	546	478	179	385
PLE	3B	TR1	CPART13C	0	0	0	0	0	296	190	281	362	527	386
PLE	3B	GN1	NONE	753	5042	794	600	584	629	623	689	441	581	572
PLE	3B	GT1	NONE	354	1086	253	183	176	336	419	673	947	1259	965
PLE	3B	TR2	CPART13B	0	0	0	0	0	54	265	631	1854	1786	1027
PLE	3B	TR1	CPART13B	0	0	0	0	0	935	1374	1500	2723	1336	1682
PLE	3B	TR2	NONE	431	272	303	306	327	266	528	3392	711	887	1749
PLE	3B	BT2	NONE	1286	1124	1255	1177	1437	1742	1548	1628	2167	2010	1922
PLE	3B	TR1	NONE	346	381	572	501	679	1108	1550	1998	3146	2873	2619
PLE	3B	BT1	NONE	1238	1185	1744	1697	1731	2064	1990	2537	2800	2921	2798
PLE	3B	BT1	CPART13B	0	0	0	0	0	0	2659	3302	3120	2900	3035
PLE	3B	BT2	CPART13B	0	0	0	0	0	774	4545	2707	2948	3868	3198

species	reg_area	reg_gear	specon	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2011-2013
PLE	3B1	LL1	NONE	41	0	0	0		0	0	0	0		0
PLE	3B1	TR1	CPART13B	0	0	0	0	0	0	0			0	0
PLE	3B1	TR3	NONE	19	0	14	0		0	0	1747	0		15
PLE	3B1	TR2	NONE	518	234	258	235	312	216	228	333	385	317	346
PLE	3B1	GN1	NONE	1007	1053	1513	1334	1820	1481	581	1303	821	886	1012
PLE	3B1	GT1	NONE	164	264	211	144	397	1367	2612	3778	2576	1273	2572
PLE	3B1	BT1	NONE	2410	2224	4536	2250	3677	2280	4418	3431	3495	3602	3536
PLE	3B1	BT2	NONE	1795	1381	2214	2740	4208	2250	4037	4525	0	0	4525
PLE	3B1	TR1	NONE	1888	2038	2353	2472	3302	2854	4055	5925	5331	4158	5064
PLE	3B2	LL1	NONE	65	5	8	0	0	0	0	0	0	0	0
PLE	3B2	TR1	CPART13A	0	0	0	0	0	0	0	0	0		0
PLE	3B2	TR3	NONE	3	9	13	7	0	2	1	0	9	15	10
PLE	3B2	TR2	CPART13A	0	0	0	0	0	0	0	0	22	24	24
PLE	3B2	TR1	CPART13C	0	0	0	0	0	295	190	281	362	528	386
PLE	3B2	TR2	CPART13C	0	0	0	0	0	439	384	553	483	172	386
PLE	3B2	GN1	NONE	783	5909	787	567	405	503	658	607	400	535	515
PLE	3B2	TR2	CPART13B	0	0	0	0	0	55	274	671	2891	3394	1212
PLE	3B2	TR1	CPART13B	0	0	0	0	0	980	1384	1518	2754	1365	1710
PLE	3B2	BT2	NONE	1337	1161	1319	1228	1534	1865	1606	1703	2315	2090	2021
PLE	3B2	GT1	NONE	801	4216	600	354	334	784	903	1306	2012	2785	2080
PLE	3B2	TR1	NONE	290	275	461	337	510	838	1081	1508	2757	2639	2221
PLE	3B2	BT1	NONE	1098	1082	1560	1622	1635	2055	1715	2497	2765	2902	2767
PLE	3B2	BT1	CPART13B	0	0	0	0	0	0	2659	3302	3120	2900	3035
PLE	3B2	BT2	CPART13B	0	0	0	0	0	879	4700	2779	3069	3978	3300
PLE	3B2	TR2	NONE	542	419	518	534	508	739	1139	13339	1821	2870	6436
PLE	3B3	LL1	CPART13B	0	0	0	0	0	0	0	0	0	0	0
PLE	3B3	TR1	CPART13B	0	0	0	0	0	0	0	0		0	0
PLE	3B3	LL1	NONE	0	0	6	0	0	6	0	0	0	9	3
PLE	3B3	TR1	CPART13C	0	0	0	0	0	690	449	0	814	0	40
PLE	3B3	TR3	NONE	48	10	0	7	0	0	141	65	129	37	78
PLE	3B3	TR1	NONE	18	16	59	22	77	50	84	84	172	208	153
PLE	3B3	TR2	CPART13B	0	0	0	0	0	31	119	91	166	452	249
PLE	3B3	GN1	NONE	127	233	52	139	120	115	111	282	150	400	269
PLE	3B3	TR2	NONE	233	84	72	58	68	67	374	204	362	281	281
PLE	3B3	GT1	NONE	179	96	68	97	100	97	118	256	292	342	297
PLE	3B3	TR2	CPART13C	0	0	0	0	0	68	426	456	266	349	358
PLE	3B3	BT2	NONE	517	445	397	433	577	481	680	761	577	1062	797
PLE	3B3	BT2	CPART13B	0	0	0	0	0	728	933	847	926	970	917
PLE	3B3	BT1	NONE	0	0	0	0	838	0	0	0	0	1002	992

Table 5.3.4.3 Skagerrak, North Sea (incl. 2EU) and Eastern Channel. Sole CPUE (g/(kW*days)) by regulated gear category and year, 2004-2013, presented for the wider North Sea (3b) and by area (3b1, 3b2, 3b3) in ascending order with regards to CPUE 2013.

species	reg_area	reg_gear	specon	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2011-2013
SOL	3B	GN1	CPART13B	0	0	0	0	0	0			0		0
SOL	3B	LL1	CPART13B	0	0	0	0	0		0		0	0	0
SOL	3B	TR1	CPART13B	0	0	0	0	0	0	1	0	1	0	0
SOL	3B	TR1	CPART13C	0	0	0	0	0	1	0	0	0	0	0
SOL	3B	TR2	CPART13A	0	0	0	0	0	0	0	0	0	0	0
SOL	3B	TR1	NONE	1	1	1	1	1	2	2	2	2	2	2
SOL	3B	BT1	CPART13B	0	0	0	0	0	0	10	6	3	3	4
SOL	3B	TR3	NONE	0	1	0	1	5	7	2	8	3	2	4
SOL	3B	LL1	NONE	0	0	0		0	1	0	3	4	10	5
SOL	3B	TR2	CPART13C	0	0	0	0	0	17	33	14	4	6	7
SOL	3B	BT1	NONE	15	9	12	10	17	15	8	10	9	15	12
SOL	3B	TR2	CPART13B	0	0	0	0	0	2	2	7	62	226	45
SOL	3B	TR2	NONE	23	17	22	27	29	39	50	50	71	88	68
SOL	3B	BT2	CPART13B	0	0	0	0	0	621	186	138	124	172	146
SOL	3B	GN1	NONE	233	255	207	243	288	295	256	224	294	330	280
SOL	3B	BT2	NONE	340	279	260	302	363	384	378	363	455	483	431
SOL	3B	GT1	NONE	528	494	351	409	533	534	320	601	663	741	670

species	reg_area	reg_gear	specon	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2011-2013
SOL	3B1	BT2	NONE	28	18	8	8	27	0	21		0	0	0
SOL	3B1	LL1	NONE	0	0	0								0
SOL	3B1	TR3	NONE	0	0		0							0
SOL	3B1	TR1	NONE	3	4	9	8	9	7	7	7	11	5	8
SOL	3B1	BT1	NONE	10	13	11	9	29	14	6	0	8	17	11
SOL	3B1	TR2	NONE	10	15	13	6	8	9	7	9	18	14	13
SOL	3B1	GN1	NONE	23	31	54	52	59	44	23	45	62	33	46
SOL	3B1	GT1	NONE	0	0	0	0	23	41	31	62	47	34	48
SOL	3B2	GN1	CPART13B	0	0	0	0	0	0			0		0
SOL	3B2	LL1	NONE	0	0	0			0	0		0	0	0
SOL	3B2	TR1	CPART13B	0	0	0	0	0	0	1	0	1	0	0
SOL	3B2	TR1	CPART13C	0	0	0	0	0	1	0	0	0	0	0
SOL	3B2	TR2	CPART13A	0	0	0	0	0	0	0	0	0	0	0
SOL	3B2	TR3	NONE	0	0	0	0	0	0	0		0	0	0
SOL	3B2	TR1	NONE	1	0	1	1	1	1	1	0	1	1	1
SOL	3B2	BT1	CPART13B	0	0	0	0	0	0	10	6	3	3	4
SOL	3B2	TR2	CPART13C	0	0	0	0	0	17	33	13	3	4	5
SOL	3B2	BT1	NONE	16	9	12	10	15	15	8	10	9	10	10
SOL	3B2	TR2	CPART13B	0	0	0	0	0	2	2	7	24	64	14
SOL	3B2	TR2	NONE	16	10	9	17	22	36	45	41	34	37	37
SOL	3B2	BT2	CPART13B	0	0	0	0	0	1005	168	124	102	158	130
SOL	3B2	GN1	NONE	245	283	229	274	311	323	295	248	334	398	322
SOL	3B2	BT2	NONE	323	266	243	291	351	366	359	344	452	475	421
SOL	3B2	GT1	NONE	568	622	321	337	666	646	324	528	572	503	534
SOL	3B3	LL1	CPART13B	0	0	0	0	0	0	0		0	0	0
SOL	3B3	TR1	CPART13C	0	0	0	0	0	0	0	0	0	0	0
SOL	3B3	LL1	NONE			0		0	6	0	10	12	18	14
SOL	3B3	TR1	NONE	0	0	40	0	26	25	9	42	17	0	20
SOL	3B3	TR3	NONE	12	20	0	7	76	78	22	33	22	25	27
SOL	3B3	TR2	CPART13C	0	0	0	0	0	11	34	36	30	57	42
SOL	3B3	TR2	NONE	40	27	38	44	47	51	71	73	109	135	104
SOL	3B3	GN1	NONE	391	259	159	226	522	567	237	338	175	39	167
SOL	3B3	TR2	CPART13B	0	0	0	0	0	12	0	4	124	360	178
SOL	3B3	BT1	NONE	0	0	0	0	1118	0	0	0	0	412	409
SOL	3B3	BT2	CPART13B	0	0	0	0	0	452	601	512	477	536	505
SOL	3B3	BT2	NONE	621	543	486	457	480	578	632	588	487	582	553
SOL	3B3	GT1	NONE	516	458	373	453	493	496	329	655	736	907	766

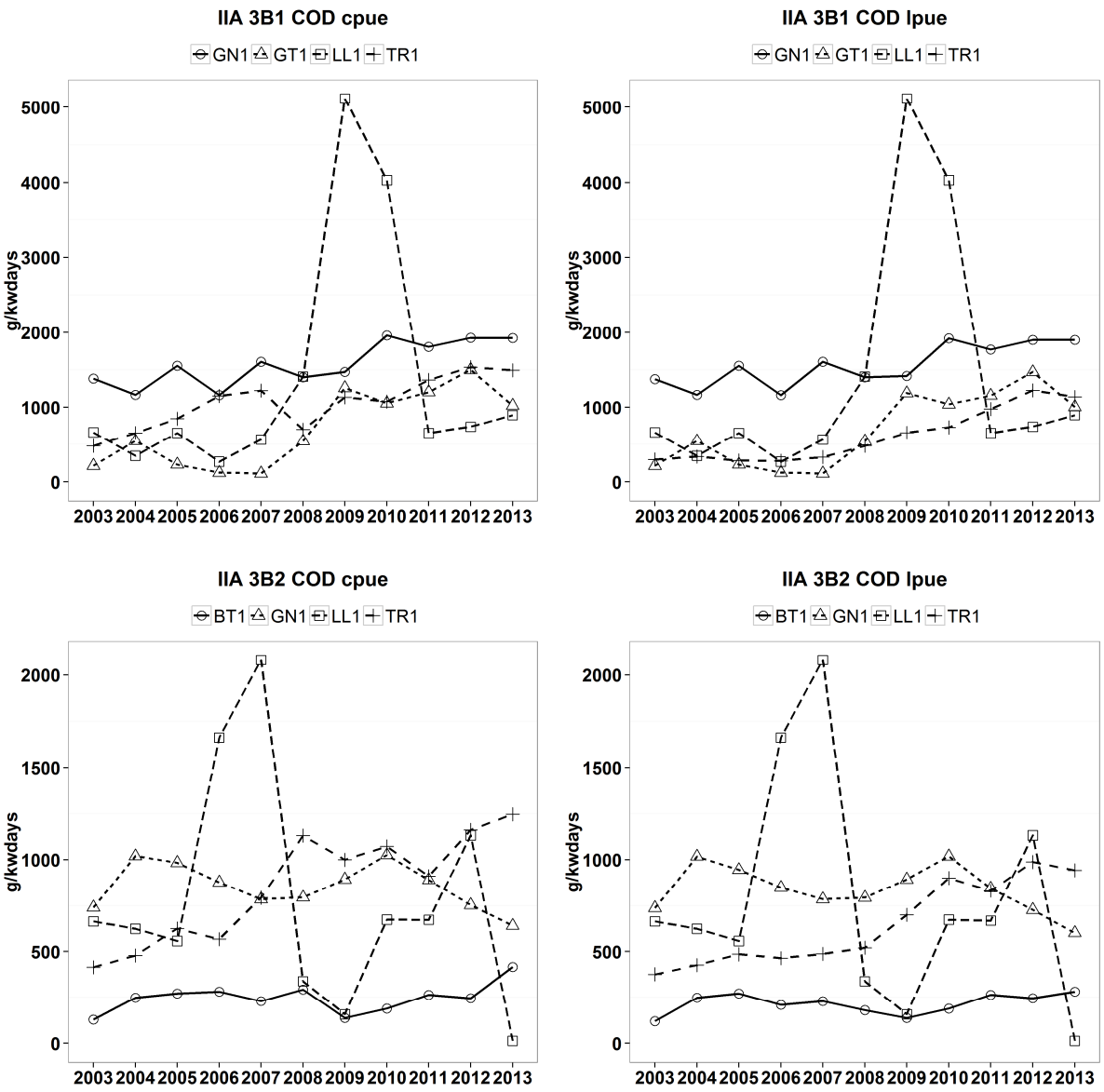
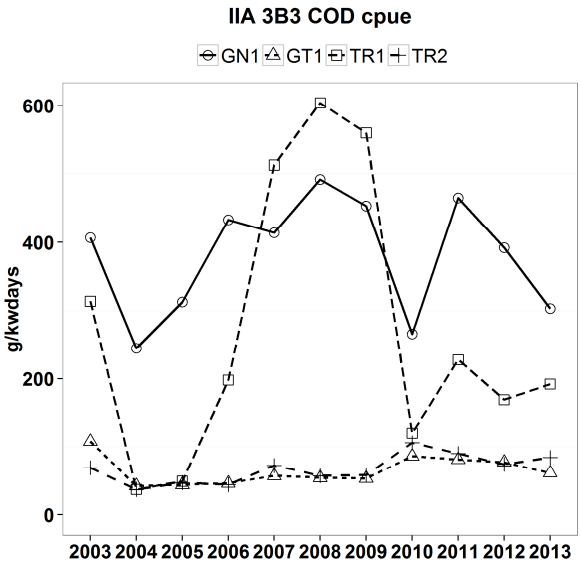


Figure 5.3.4.1 Area 3b1, 3b2 and 3b3. CPUE and LPUE (g/(kW*days) of cod for the four main cod plan categories.



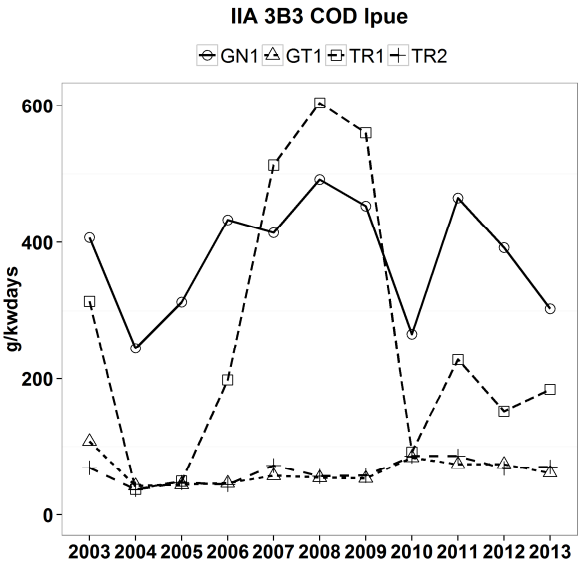


Figure 5.3.4.1 continued

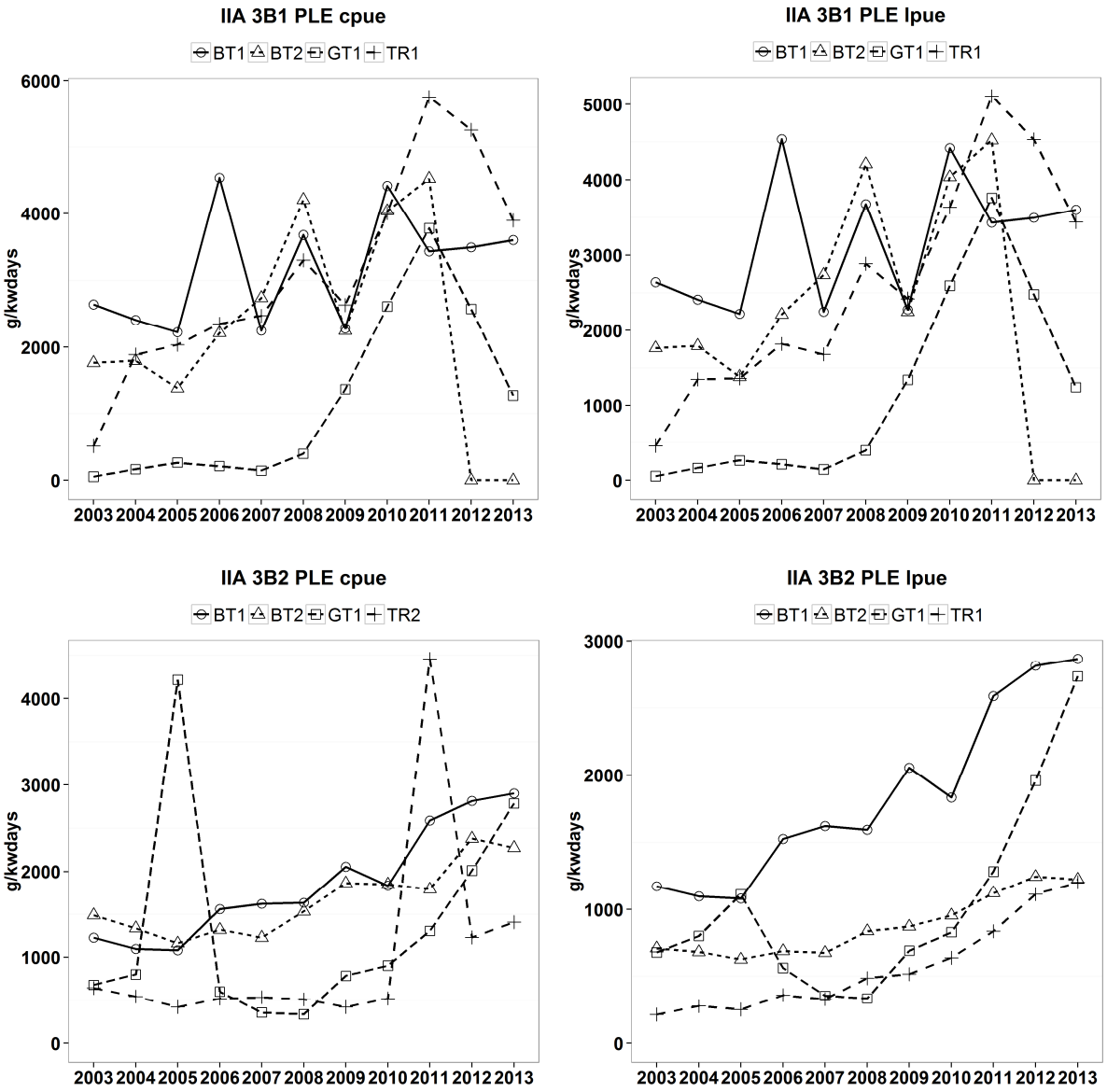


Figure 5.3.4.2 Area 3b1, 3b2 and 3b3. CPUE and LPUE (g/(kW*days) of plaice for the four main cod plan categories.

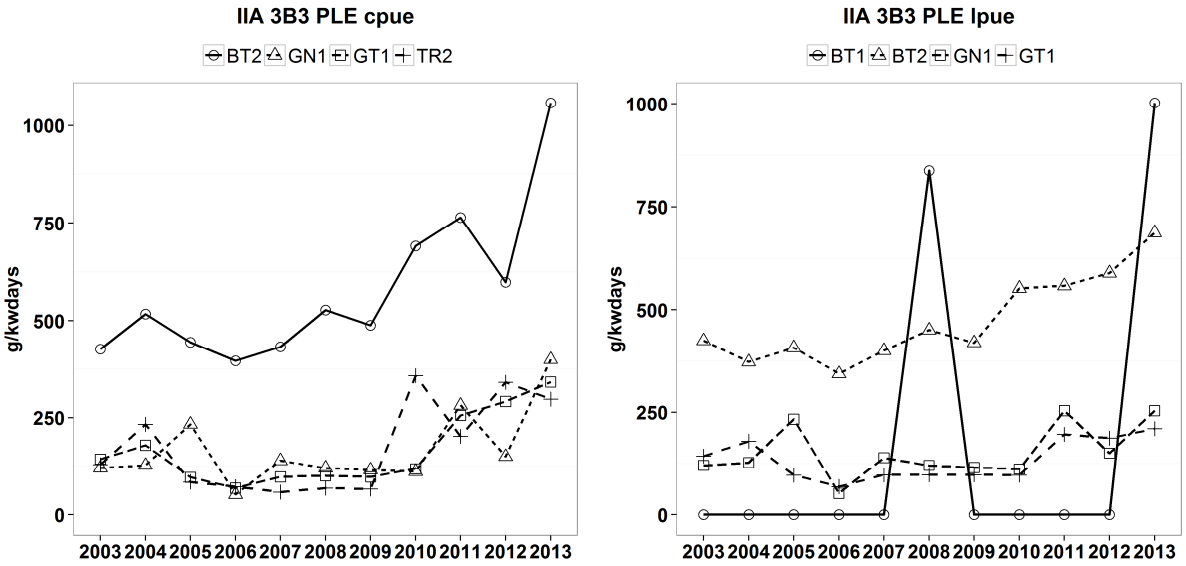


Figure 5.3.4.2 continued

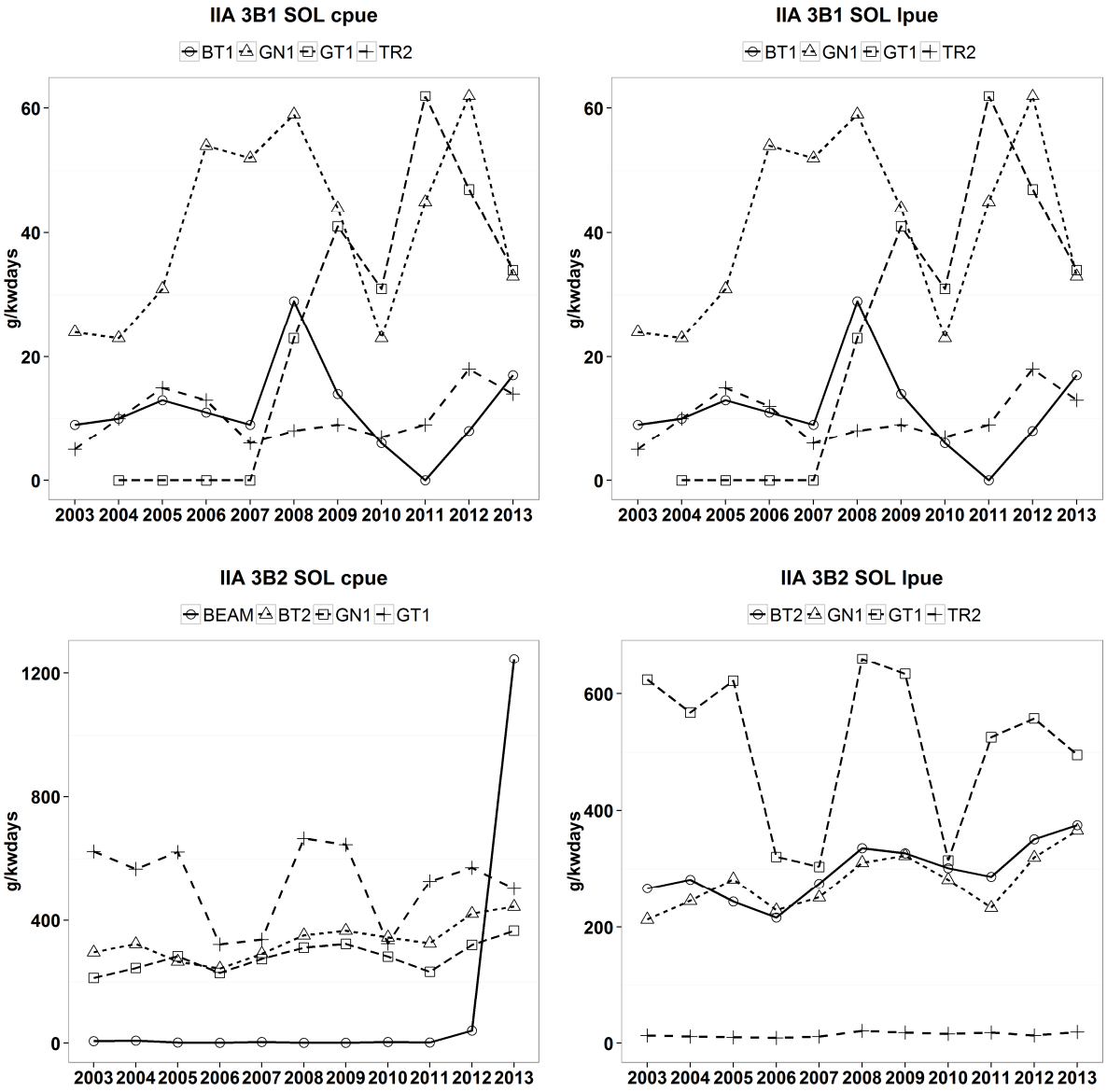


Figure 5.3.4.3 Area 3b1, 3b2 and 3b3: CPUE and LPUE (g/(kW*days) of sole for the four main cod plan categories.

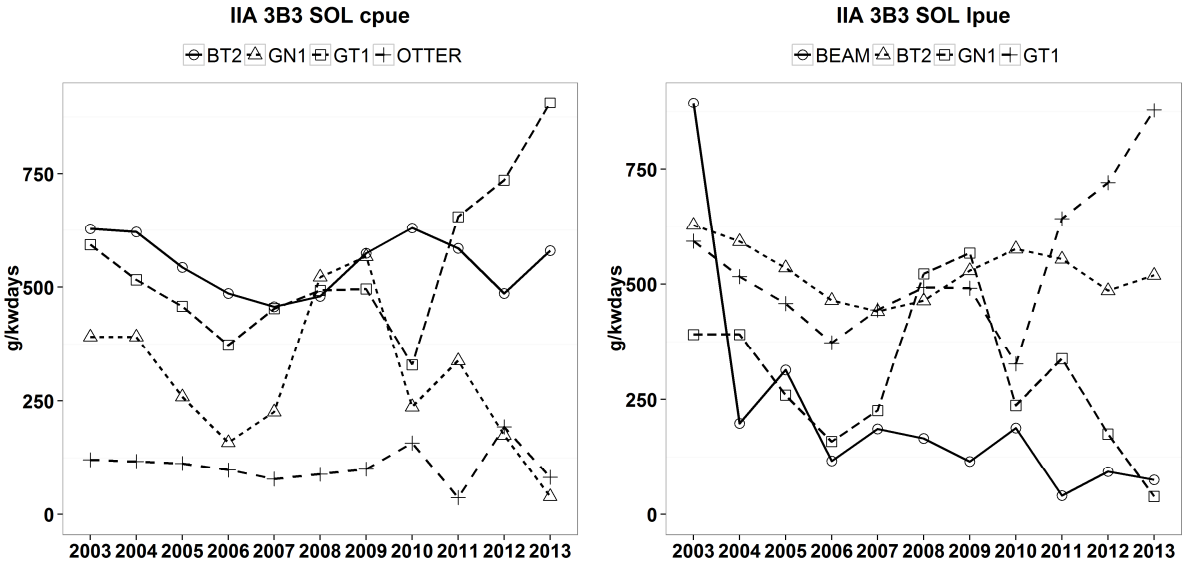


Figure 5.3.4.3 continued

5.3.5 ToR 2 Rank regulated gear groups on the basis of catches expressed both in weight and in number of cod, sole and plaice

Rankings of gears in terms of catches and landings are shown in Tables 5.3.5.1 to 5.3.5.4 for area 3b combined and for areas 3b1, 3b2 and 3b3 separated.

For cod, TR1 and TR2 contribute to more than 80% of the catches in area 3b combined in 2013 (Table 5.3.5.1). The most important gears for plaice are BT2, TR1 and TR2, while for sole BT2 and GT1 contribute to more than 80% of the catches. The ranking based on landings is quite similar, but for plaice now BT2, TR1 and BT1 contribute to more than 80% of the landings. BT1 has higher landings than TR2 but discards are much higher for TR2.

With regards to cod, the ranking of gear types is different between sub-areas 3b1, 3b2 and 3b3. In the Skagerrak TR1 and TR2 accumulate to more than 80% of the catches in 2013 while TR1 is the most important gear in the North Sea and 2 EU. Differences can be also observed for plaice and sole between areas 3b1, 3b2 and 3b3.

Ranking in number is not dealt with in this section; number can be found at the website

http://stecf.jrc.ec.europa.eu/web/stecf/ewg1413

Table 5.3.5.1. Skagerrak (3b1), North Sea including 2 EU (3b2) and Eastern Channel (3b3) combined: Ranked categories according to relative cod, plaice and sole **catches** in weight in area 3b combined, 2005-2013. Ranking is according to the year 2013.

Reg_area	Species	Reg_gear	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel	2011 Rel	2012 Rel	2013 Rel	CUMUL 2013
3B	COD	TR1	0.51925	0.50781	0.55272	0.66960	0.66988	0.66378	0.63747	0.69285	0.76199	1.00000
3B	COD	TR2	0.20255	0.22854	0.27264	0.15728	0.15991	0.15925	0.18980	0.15198	0.09981	0.23801
3B	COD	GN1	0.12456	0.10954	0.07175	0.06174	0.07679	0.09196	0.09600	0.07805	0.06319	0.13820
3B	COD	BT1	0.04364	0.04892	0.02187	0.01423	0.00596	0.00869	0.01297	0.02156	0.04125	0.07501
3B	COD	BT2	0.09446	0.08647	0.06593	0.08340	0.07165	0.05675	0.04591	0.03677	0.02112	0.03376
3B	COD	GT1	0.01074	0.01117	0.00977	0.00887	0.01243	0.01126	0.01189	0.01350	0.01182	0.01264
3B	COD	TR3	0.00059	0.00025	0.00012	0.00002	0.00005	0.00049	0.00013	0.00008	0.00054	0.00082
3B	COD	LL1	0.00420	0.00729	0.00520	0.00486	0.00332	0.00782	0.00584	0.00519	0.00027	0.00027
3B	PLE	BT2	0.58225	0.63136	0.66815	0.62845	0.68556	0.64353	0.40258	0.53250	0.53854	1.00000
3B	PLE	TR1	0.08258	0.13950	0.12567	0.19144	0.17240	0.19429	0.16672	0.24325	0.23656	0.46146
3B	PLE	TR2	0.07868	0.09649	0.10981	0.11300	0.07528	0.09997	0.37508	0.12609	0.10389	0.22490
3B	PLE	BT1	0.04945	0.09031	0.06628	0.04025	0.03489	0.03427	0.02850	0.06634	0.08006	0.12101
3B	PLE	GT1	0.03937	0.01317	0.01065	0.00741	0.01278	0.01061	0.01325	0.02188	0.02961	0.04095
3B	PLE	GN1	0.16747	0.02894	0.01935	0.01944	0.01906	0.01714	0.01379	0.00979	0.01121	0.01134
3B	PLE	TR3	0.00019	0.00022	0.00008	0.00001	0.00001	0.00018	0.00007	0.00013	0.00012	0.00013
3B	PLE	LL1	0.00001	0.00002	0.00000	0.00000	0.00001	0.00001	0.00001	0.00000	0.00001	0.00001
3B	SOL	BT2	0.81941	0.79557	0.80303	0.78820	0.79929	0.85122	0.78544	0.76646	0.76340	1.00000
3B	SOL	GT1	0.10143	0.11128	0.11154	0.11087	0.10690	0.05249	0.11463	0.11559	0.11879	0.23660
3B	SOL	TR2	0.02786	0.04184	0.04560	0.04905	0.04357	0.04791	0.05379	0.06594	0.07081	0.11781
3B	SOL	GN1	0.04805	0.04581	0.03650	0.04762	0.04692	0.04563	0.04332	0.04925	0.04340	0.04700
3B	SOL	BT1	0.00224	0.00364	0.00175	0.00198	0.00132	0.00092	0.00103	0.00138	0.00241	0.00360
3B	SOL	TR1	0.00092	0.00181	0.00153	0.00198	0.00169	0.00164	0.00147	0.00122	0.00093	0.00120
3B	SOL	TR3	0.00009	0.00004	0.00004	0.00030	0.00029	0.00018	0.00027	0.00012	0.00014	0.00026
3B	SOL	LL1	0.00000	0.00000	0.00000	0.00000	0.00003	0.00002	0.00006	0.00003	0.00013	0.00013

Table 5.3.5.2. Skagerrak (3b1), North Sea including 2 EU (3b2) and Eastern Channel (3b3) combined: Ranked categories according to relative cod, plaice and sole **landings** in weight in area 3b combined, 2005-2013. Ranking is according to the year 2013.

Reg_area	Species	Reg_gear	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel	2011 Rel	2012 Rel	2013 Rel	CUMUL 2013
3B	COD	TR1	0.51638	0.53218	0.54733	0.58811	0.65445	0.68426	0.68763	0.72396	0.76261	1.00000
3B	COD	TR2	0.14987	0.14166	0.16343	0.13920	0.12247	0.10602	0.11485	0.09366	0.07984	0.23739
3B	COD	GN1	0.16204	0.14829	0.12335	0.11548	0.10763	0.11322	0.11022	0.09330	0.07966	0.15755
3B	COD	BT1	0.05864	0.05102	0.03759	0.01650	0.00843	0.01081	0.01559	0.02657	0.03693	0.07789
3B	COD	BT2	0.09231	0.10106	0.10237	0.11498	0.08493	0.06156	0.05138	0.03996	0.02518	0.04097
3B	COD	GT1	0.01440	0.01530	0.01679	0.01659	0.01731	0.01382	0.01321	0.01604	0.01471	0.01579
3B	COD	TR3	0.00070	0.00034	0.00020	0.00004	0.00008	0.00060	0.00015	0.00010	0.00072	0.00108
3B	COD	LL1	0.00565	0.01016	0.00893	0.00910	0.00470	0.00972	0.00696	0.00640	0.00036	0.00036
3B	PLE	BT2	0.60765	0.53877	0.59555	0.53001	0.54180	0.52807	0.49255	0.44847	0.43314	1.00000
3B	PLE	TR1	0.12991	0.17119	0.16787	0.26781	0.26049	0.28089	0.30113	0.31375	0.31746	0.56686
3B	PLE	BT1	0.09338	0.14010	0.10301	0.05906	0.05755	0.05325	0.05536	0.10469	0.11718	0.24941
3B	PLE	TR2	0.10151	0.08659	0.09097	0.10306	0.08960	0.09603	0.10016	0.08636	0.07546	0.13223
3B	PLE	GT1	0.02338	0.01972	0.01656	0.01098	0.01925	0.01498	0.02398	0.03139	0.04038	0.05678
3B	PLE	GN1	0.04402	0.04327	0.02592	0.02906	0.03128	0.02659	0.02666	0.01522	0.01621	0.01640
3B	PLE	TR3	0.00013	0.00034	0.00012	0.00001	0.00002	0.00017	0.00014	0.00011	0.00018	0.00019
3B	PLE	LL1	0.00002	0.00002	0.00000	0.00000	0.00001	0.00001	0.00001	0.00000	0.00001	0.00001
3B	SOL	BT2	0.80757	0.77808	0.80464	0.78211	0.78248	0.84518	0.77261	0.76311	0.76807	1.00000
3B	SOL	GT1	0.10817	0.12103	0.11320	0.11440	0.11536	0.05835	0.12478	0.13266	0.13702	0.23193
3B	SOL	GN1	0.05124	0.04983	0.03582	0.04927	0.05120	0.05133	0.04785	0.05773	0.05142	0.09491
3B	SOL	TR2	0.02956	0.04524	0.04283	0.04983	0.04734	0.04210	0.05163	0.04332	0.03926	0.04349
3B	SOL	BT1	0.00239	0.00391	0.00185	0.00204	0.00144	0.00103	0.00114	0.00162	0.00285	0.00424
3B	SOL	TR1	0.00096	0.00187	0.00161	0.00205	0.00184	0.00179	0.00162	0.00140	0.00107	0.00138
3B	SOL	TR3	0.00009	0.00005	0.00005	0.00031	0.00031	0.00020	0.00030	0.00013	0.00016	0.00031
3B	SOL	LL1	0.00000	0.00000	0.00000	0.00000	0.00003	0.00002	0.00007	0.00004	0.00015	0.00015

Table 5.3.5.3. Skagerrak (3b1), North Sea including 2 EU (3b2) and Eastern Channel (3b3) separated: Ranked categories according to relative cod, plaice and sole **catches** in weight, 2005-2013. Ranking is according to the year 2013.

Reg_area	Species	Reg_gear	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel	2011 Rel	2012 Rel	2013 Rel	CUMUL 2013
3B1	COD	TR1	0.2390	0.3018	0.3990	0.3129	0.3446	0.3509	0.2898	0.3378	0.4300	1.0000
3B1	COD	TR2	0.6065	0.6059	0.4776	0.4823	0.4965	0.4693	0.5491	0.5092	0.4055	0.5700
3B1	COD	GN1	0.1144	0.0713	0.0983	0.1664	0.1372	0.1594	0.1393	0.1278	0.1458	0.1645
3B1	COD	GT1	0.0012	0.0014	0.0012	0.0134	0.0180	0.0142	0.0156	0.0186	0.0127	0.0187
3B1	COD	TR3	0.0005	0.0003	0.0000	0.0000	0.0001	0.0001	0.0000	0.0000	0.0034	0.0060
3B1	COD	BT1	0.0297	0.0083	0.0049	0.0032	0.0002	0.0035	0.0016	0.0021	0.0014	0.0026
3B1	COD	LL1	0.0048	0.0050	0.0156	0.0177	0.0011	0.0019	0.0047	0.0044	0.0011	0.0011
3B1	COD	BT2	0.0037	0.0061	0.0033	0.0042	0.0022	0.0007	0.0000	0.0000	0.0000	0.0000
3B2	COD	TR1	0.5980	0.5801	0.6117	0.7220	0.7397	0.7367	0.7274	0.7832	0.8401	1.0000
3B2	COD	GN1	0.1279	0.1179	0.0647	0.0517	0.0672	0.0838	0.0902	0.0692	0.0500	0.1599
3B2	COD	BT1	0.0482	0.0611	0.0266	0.0157	0.0070	0.0098	0.0156	0.0260	0.0491	0.1099
3B2	COD	TR2	0.0989	0.1204	0.2112	0.1152	0.0929	0.0886	0.1006	0.0651	0.0288	0.0607
3B2	COD	BT2	0.1148	0.1051	0.0777	0.0867	0.0817	0.0656	0.0542	0.0435	0.0238	0.0319
3B2	COD	GT1	0.0076	0.0072	0.0047	0.0050	0.0077	0.0062	0.0057	0.0077	0.0080	0.0081
3B2	COD	TR3	0.0006	0.0003	0.0001	0.0000	0.0000	0.0003	0.0001	0.0000	0.0001	0.0001
3B2	COD	LL1	0.0041	0.0080	0.0032	0.0037	0.0036	0.0090	0.0061	0.0054	0.0000	0.0000
3B3	COD	TR2	0.6590	0.5774	0.6169	0.5471	0.6338	0.7628	0.7261	0.7113	0.7404	1.0000
3B3	COD	GT1	0.1626	0.1598	0.1277	0.1224	0.1379	0.1340	0.1505	0.1634	0.1344	0.2596
3B3	COD	BT2	0.0774	0.1151	0.0818	0.2154	0.0943	0.0534	0.0555	0.0493	0.0500	0.1252
3B3	COD	GN1	0.0929	0.1340	0.1001	0.0702	0.0826	0.0306	0.0332	0.0566	0.0367	0.0752
3B3	COD	TR1	0.0037	0.0098	0.0710	0.0402	0.0468	0.0114	0.0288	0.0124	0.0323	0.0385
3B3	COD	BT1	0.0000	0.0000	0.0000	0.0009	0.0000	0.0000	0.0000	0.0000	0.0032	0.0062
3B3	COD	LL1	0.0044	0.0039	0.0024	0.0032	0.0040	0.0018	0.0037	0.0045	0.0029	0.0029
3B3	COD	TR3	0.0000	0.0000	0.0000	0.0005	0.0006	0.0060	0.0022	0.0024	0.0000	0.0000

Reg_area	Species	Reg_gear	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel	2011 Rel	2012 Rel	2013 Rel	CUMUL 2013
3B1	PLE	TR1	0.4780	0.4419	0.5305	0.6386	0.6810	0.7169	0.7365	0.7459	0.7465	1.0000
3B1	PLE	TR2	0.1915	0.1466	0.1040	0.1606	0.1355	0.0923	0.1473	0.1440	0.1113	0.2535
3B1	PLE	BT1	0.1505	0.1884	0.1138	0.0457	0.0265	0.0806	0.0252	0.0546	0.0870	0.1422
3B1	PLE	GN1	0.0643	0.0665	0.0538	0.0937	0.1173	0.0260	0.0605	0.0349	0.0447	0.0553
3B1	PLE	GT1	0.0012	0.0017	0.0010	0.0042	0.0169	0.0193	0.0297	0.0207	0.0106	0.0106
3B1	PLE	BT2	0.1144	0.1547	0.1968	0.0572	0.0228	0.0649	0.0005	0.0000	0.0000	0.0000
3B1	PLE	LL1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3B1	PLE	TR3	0.0000	0.0002	0.0001	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000	0.0000
3B2	PLE	BT2	0.6123	0.6741	0.7193	0.6846	0.7291	0.7133	0.4247	0.5797	0.5756	1.0000
3B2	PLE	TR1	0.0608	0.1177	0.0881	0.1537	0.1452	0.1556	0.1371	0.2182	0.2160	0.4244
3B2	PLE	TR2	0.0646	0.0848	0.1049	0.1033	0.0659	0.0741	0.3883	0.1055	0.0891	0.2083
3B2	PLE	BT1	0.0446	0.0847	0.0639	0.0413	0.0365	0.0318	0.0296	0.0700	0.0831	0.1193
3B2	PLE	GT1	0.0399	0.0120	0.0078	0.0047	0.0102	0.0081	0.0091	0.0182	0.0267	0.0361
3B2	PLE	GN1	0.1776	0.0264	0.0159	0.0124	0.0132	0.0171	0.0112	0.0083	0.0093	0.0094
3B2	PLE	TR3	0.0002	0.0002	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001
3B2	PLE	LL1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3B3	PLE	BT2	0.5170	0.5748	0.6227	0.6745	0.6407	0.3670	0.4789	0.3050	0.4553	1.0000
3B3	PLE	TR2	0.3524	0.3363	0.2501	0.2346	0.2594	0.5828	0.3963	0.5766	0.4092	0.5447
3B3	PLE	GT1	0.1087	0.0820	0.1090	0.0815	0.0895	0.0418	0.1154	0.1099	0.1162	0.1355
3B3	PLE	GN1	0.0208	0.0058	0.0165	0.0063	0.0076	0.0028	0.0049	0.0038	0.0075	0.0193
3B3	PLE	BT1	0.0000	0.0000	0.0000	0.0010	0.0000	0.0000	0.0000	0.0000	0.0061	0.0118
3B3	PLE	TR1	0.0006	0.0008	0.0013	0.0018	0.0024	0.0019	0.0025	0.0022	0.0051	0.0057
3B3	PLE	TR3	0.0005	0.0001	0.0003	0.0002	0.0002	0.0036	0.0019	0.0024	0.0005	0.0006
3B3	PLE	LL1	0.0001	0.0002	0.0001	0.0000	0.0002	0.0001	0.0002	0.0000	0.0001	0.0001

Reg_area	Species	Reg_gear	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel	2011 Rel	2012 Rel	2013 Rel	CUMUL 2013
3B1	SOL	TR2	0.7036	0.5785	0.4005	0.3955	0.4921	0.4727	0.5503	0.5942	0.5990	1.0000
3B1	SOL	GN1	0.1048	0.1923	0.2608	0.3146	0.3146	0.1698	0.2742	0.2277	0.2018	0.4010
3B1	SOL	TR1	0.0593	0.1418	0.1990	0.1895	0.1425	0.2279	0.1159	0.1346	0.1258	0.1992
3B1	SOL	BT1	0.0497	0.0341	0.0568	0.0364	0.0100	0.0236	0.0026	0.0074	0.0438	0.0734
3B1	SOL	GT1	0.0002	0.0039	0.0054	0.0236	0.0388	0.0462	0.0571	0.0361	0.0296	0.0296
3B1	SOL	BT2	0.0817	0.0494	0.0774	0.0404	0.0021	0.0598	0.0000	0.0000	0.0000	0.0000
3B1	SOL	LL1	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3B1	SOL	TR3	0.0002	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3B2	SOL	BT2	0.8954	0.8831	0.8996	0.8670	0.8761	0.9096	0.8850	0.8820	0.8937	1.0000
3B2	SOL	GN1	0.0541	0.0545	0.0404	0.0530	0.0516	0.0525	0.0525	0.0594	0.0550	0.1063
3B2	SOL	GT1	0.0375	0.0458	0.0391	0.0522	0.0514	0.0199	0.0420	0.0445	0.0383	0.0513
3B2	SOL	TR2	0.0099	0.0109	0.0179	0.0244	0.0179	0.0159	0.0184	0.0118	0.0103	0.0130
3B2	SOL	BT1	0.0024	0.0045	0.0020	0.0021	0.0016	0.0010	0.0013	0.0017	0.0020	0.0027
3B2	SOL	TR1	0.0007	0.0011	0.0011	0.0013	0.0014	0.0010	0.0008	0.0006	0.0007	0.0007
3B2	SOL	TR3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3B2	SOL	LL1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3B3	SOL	GT1	0.4010	0.3344	0.3671	0.3310	0.3172	0.2051	0.3674	0.3878	0.3984	1.0000
3B3	SOL	BT2	0.4908	0.5200	0.4756	0.5103	0.5227	0.5915	0.4549	0.3474	0.3231	0.6016
3B3	SOL	TR2	0.0894	0.1322	0.1375	0.1337	0.1330	0.1903	0.1672	0.2577	0.2730	0.2785
3B3	SOL	BT1	0.0000	0.0000	0.0000	0.0009	0.0000	0.0000	0.0000	0.0000	0.0034	0.0055
3B3	SOL	GN1	0.0183	0.0128	0.0195	0.0220	0.0250	0.0112	0.0074	0.0062	0.0010	0.0021
3B3	SOL	LL1	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0003	0.0002	0.0006	0.0011
3B3	SOL	TR3	0.0005	0.0001	0.0002	0.0014	0.0014	0.0010	0.0012	0.0005	0.0005	0.0006
3B3	SOL	TR1	0.0001	0.0006	0.0001	0.0006	0.0006	0.0007	0.0017	0.0002	0.0000	0.0000

Table 5.3.5.4. Skagerrak (3b1), North Sea including 2 EU (3b2) and Eastern Channel (3b3) separated: Ranked categories according to relative cod, plaice and sole **landings** in weight in area 3b, 2004-2013. Ranking is according to the year 2013.

Reg_area	Species	Reg_gear	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel	2011 Rel	2012 Rel	2013 Rel	CUMUL 2013
3B1	TR1	COD	0.16140	0.19506	0.27892	0.30992	0.33743	0.36078	0.33616	0.40520	0.45302	1.00000
3B1	TR2	COD	0.52516	0.55841	0.40382	0.39383	0.40515	0.37225	0.40807	0.36913	0.32242	0.54698
3B1	GN1	COD	0.23249	0.19045	0.25291	0.24071	0.22253	0.23653	0.22116	0.18846	0.19900	0.22456
3B1	GT1	COD	0.00253	0.00381	0.00304	0.01934	0.02872	0.02096	0.02453	0.02736	0.01729	0.02555
3B1	TR3	COD	0.00058	0.00063	0.00001	0.00000	0.00019	0.00017	0.00001	0.00000	0.00473	0.00826
3B1	BT1	COD	0.06046	0.02212	0.01267	0.00457	0.00036	0.00532	0.00254	0.00319	0.00195	0.00353
3B1	LL1	COD	0.00979	0.01323	0.04009	0.02560	0.00185	0.00291	0.00754	0.00667	0.00158	0.00158
3B1	BT2	COD	0.00759	0.01629	0.00853	0.00604	0.00376	0.00107	0.00000	0.00000	0.00000	0.00000
3B2	TR1	COD	0.58673	0.59953	0.62767	0.65353	0.72106	0.75039	0.76342	0.79847	0.83798	1.00000
3B2	GN1	COD	0.15548	0.14400	0.10825	0.10181	0.09382	0.10084	0.09851	0.07983	0.06176	0.16202
3B2	BT1	COD	0.06093	0.05713	0.04444	0.01887	0.00982	0.01190	0.01803	0.03112	0.04373	0.10026
3B2	BT2	COD	0.10454	0.11111	0.11840	0.12660	0.09528	0.06929	0.05814	0.04580	0.02814	0.05654
3B2	TR2	COD	0.07685	0.06906	0.08768	0.08205	0.06426	0.04873	0.04876	0.02955	0.01873	0.02840
3B2	GT1	COD	0.00957	0.00873	0.00789	0.00980	0.01062	0.00757	0.00604	0.00880	0.00951	0.00967
3B2	TR3	COD	0.00075	0.00032	0.00025	0.00001	0.00004	0.00042	0.00008	0.00003	0.00010	0.00016
3B2	LL1	COD	0.00514	0.01013	0.00543	0.00732	0.00509	0.01086	0.00701	0.00641	0.00006	0.00006
3B3	TR2	COD	0.66064	0.58830	0.62892	0.58854	0.63559	0.73503	0.72959	0.70197	0.70853	1.00000
3B3	GT1	COD	0.16296	0.16278	0.13023	0.13272	0.14040	0.15361	0.14393	0.17000	0.15130	0.29147
3B3	BT2	COD	0.07514	0.09835	0.06390	0.15396	0.08757	0.05642	0.05526	0.04868	0.05650	0.14016
3B3	GN1	COD	0.09309	0.13658	0.10206	0.07614	0.08408	0.03597	0.03487	0.06087	0.04163	0.08366
3B3	TR1	COD	0.00374	0.01003	0.07240	0.04361	0.04768	0.01028	0.03017	0.01119	0.03505	0.04203
3B3	BT1	COD	0.00000	0.00000	0.00000	0.00097	0.00000	0.00000	0.00000	0.00000	0.00364	0.00698
3B3	LL1	COD	0.00440	0.00396	0.00249	0.00350	0.00409	0.00207	0.00388	0.00483	0.00334	0.00334
3B3	TR3	COD	0.00002	0.00000	0.00000	0.00055	0.00060	0.00663	0.00230	0.00246	0.00000	0.00000

Reg_area	Species	Reg_gear	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel	2011 Rel	2012 Rel	2013 Rel	CUMUL 2013
3B1	TR1	PLE	0.4148	0.3986	0.4499	0.6396	0.6826	0.7087	0.7293	0.7359	0.7579	1.0000
3B1	BT1	PLE	0.1957	0.2197	0.1421	0.0524	0.0289	0.0877	0.0281	0.0624	0.1001	0.2421
3B1	TR2	PLE	0.1554	0.1215	0.0937	0.1302	0.1196	0.0844	0.1418	0.1411	0.0810	0.1420
3B1	GN1	PLE	0.0837	0.0775	0.0672	0.1075	0.1261	0.0278	0.0669	0.0377	0.0492	0.0610
3B1	GT1	PLE	0.0016	0.0019	0.0013	0.0048	0.0180	0.0208	0.0331	0.0229	0.0118	0.0118
3B1	BT2	PLE	0.1489	0.1805	0.2457	0.0656	0.0248	0.0706	0.0005	0.0000	0.0000	0.0000
3B1	LL1	PLE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3B1	TR3	PLE	0.0000	0.0001	0.0001	0.0000	0.0000	0.0000	0.0003	0.0000	0.0000	0.0000
3B2	BT2	PLE	0.6557	0.5812	0.6428	0.5880	0.5911	0.5906	0.5488	0.4898	0.4643	1.0000
3B2	TR1	PLE	0.1101	0.1511	0.1395	0.2311	0.2300	0.2346	0.2669	0.2840	0.2945	0.5357
3B2	BT1	PLE	0.0886	0.1367	0.1039	0.0633	0.0632	0.0510	0.0610	0.1130	0.1228	0.2412
3B2	TR2	PLE	0.0832	0.0712	0.0802	0.0908	0.0773	0.0844	0.0818	0.0712	0.0651	0.1184
3B2	GT1	PLE	0.0209	0.0186	0.0127	0.0075	0.0156	0.0119	0.0184	0.0286	0.0392	0.0533
3B2	GN1	PLE	0.0415	0.0408	0.0208	0.0194	0.0228	0.0274	0.0231	0.0133	0.0139	0.0140
3B2	TR3	PLE	0.0001	0.0004	0.0001	0.0000	0.0000	0.0000	0.0000	0.0001	0.0002	0.0002
3B2	LL1	PLE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3B3	BT2	PLE	0.4953	0.5652	0.6049	0.6480	0.6056	0.5489	0.4770	0.5307	0.5222	1.0000
3B3	TR2	PLE	0.3682	0.3341	0.2619	0.2531	0.2846	0.3768	0.3900	0.3345	0.3239	0.4778
3B3	GT1	PLE	0.1136	0.0929	0.1141	0.0883	0.0984	0.0635	0.1208	0.1244	0.1262	0.1539
3B3	BT1	PLE	0.0000	0.0000	0.0000	0.0011	0.0000	0.0000	0.0000	0.0000	0.0108	0.0278
3B3	GN1	PLE	0.0217	0.0066	0.0173	0.0071	0.0084	0.0053	0.0059	0.0066	0.0084	0.0169
3B3	TR1	PLE	0.0006	0.0009	0.0014	0.0020	0.0026	0.0016	0.0033	0.0021	0.0075	0.0086
3B3	TR3	PLE	0.0005	0.0001	0.0003	0.0002	0.0002	0.0037	0.0026	0.0016	0.0009	0.0011
3B3	LL1	PLE	0.0001	0.0002	0.0001	0.0000	0.0002	0.0001	0.0002	0.0001	0.0002	0.0002

Reg_area	Species	Reg_gear	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel	2011 Rel	2012 Rel	2013 Rel	CUMUL 2013
3B1	TR2	SOL	0.6982	0.5695	0.3767	0.3797	0.4853	0.4714	0.5286	0.5926	0.5867	1.0000
3B1	GN1	SOL	0.1076	0.2043	0.2712	0.3228	0.3189	0.1701	0.2875	0.2289	0.2125	0.4133
3B1	TR1	SOL	0.0584	0.1334	0.2069	0.1944	0.1443	0.2286	0.1214	0.1347	0.1235	0.2009
3B1	BT1	SOL	0.0511	0.0362	0.0591	0.0373	0.0101	0.0236	0.0027	0.0074	0.0461	0.0774
3B1	GT1	SOL	0.0002	0.0041	0.0056	0.0242	0.0393	0.0463	0.0598	0.0364	0.0312	0.0312
3B1	BT2	SOL	0.0839	0.0524	0.0805	0.0415	0.0021	0.0600	0.0000	0.0000	0.0000	0.0000
3B1	LL1	SOL	0.0005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3B1	TR3	SOL	0.0002	0.0000	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3B2	BT2	SOL	0.8870	0.8705	0.9069	0.8633	0.8643	0.8990	0.8718	0.8650	0.8775	1.0000
3B2	GN1	SOL	0.0584	0.0605	0.0395	0.0551	0.0569	0.0591	0.0587	0.0698	0.0640	0.1225
3B2	GT1	SOL	0.0405	0.0507	0.0376	0.0537	0.0559	0.0218	0.0468	0.0511	0.0439	0.0585
3B2	TR2	SOL	0.0107	0.0121	0.0128	0.0243	0.0196	0.0177	0.0203	0.0115	0.0115	0.0146
3B2	BT1	SOL	0.0026	0.0049	0.0021	0.0021	0.0018	0.0012	0.0015	0.0020	0.0023	0.0031
3B2	TR1	SOL	0.0008	0.0012	0.0012	0.0014	0.0015	0.0011	0.0009	0.0007	0.0008	0.0008
3B2	TR3	SOL	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3B2	LL1	SOL	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3B3	GT1	SOL	0.4039	0.3421	0.3696	0.3370	0.3290	0.2294	0.3834	0.4421	0.4907	1.0000
3B3	BT2	SOL	0.4871	0.5089	0.4710	0.5016	0.5036	0.6086	0.4596	0.4034	0.3671	0.5093
3B3	TR2	SOL	0.0901	0.1352	0.1392	0.1361	0.1391	0.1477	0.1460	0.1464	0.1352	0.1422
3B3	BT1	SOL	0.0000	0.0000	0.0000	0.0010	0.0000	0.0000	0.0000	0.0000	0.0043	0.0070
3B3	GN1	SOL	0.0184	0.0131	0.0200	0.0224	0.0262	0.0126	0.0077	0.0072	0.0013	0.0027
3B3	LL1	SOL	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0003	0.0002	0.0007	0.0014
3B3	TR3	SOL	0.0005	0.0001	0.0002	0.0014	0.0014	0.0011	0.0013	0.0006	0.0007	0.0007
3B3	TR1	SOL	0.0001	0.0006	0.0001	0.0006	0.0006	0.0005	0.0018	0.0001	0.0001	0.0001

5.3.6 ToR 3 Information on small boats (<10m)

5.3.6.1 Fishing effort of small boats by Member State

Effort (Table 5.3.6.1.1) is provided for the vessels under 10m (including Article 11 vessels!) in area 3b, for all countries except Belgium. German data are incomplete as logbook information is not mandatory for vessels under 10m in Germany. UK data are poor until the introduction of registration of buyers and sellers legislation in 2006 after which recording of effort has improved. Danish data are incomplete till 2010. Therefore, up to 2010 data have to be regarded as not representative and should not be interpreted. Especially the increase in effort around 2006 and 2010 does most likely not mean an increase in effort in reality. Between 2010 and 2011 effort was stable. In 2011 around half of the effort is operated with Pots (47%), followed by GN1 (13%) and TR2 (12%). Unregulated gears account for 60% of total effort from vessels <10m.

The highest effort in 2013 was recorded by England, Scotland and France (Table 5.3.6.1.2.) For the whole area 3b in 2013, the effort from vessels <10m was 8% of the total effort in this area.

Table 5.3.6.1.1 Skagerrak, North Sea and Eastern Channel. Fishing effort (kWdays) by vessels <10m. Data include Art. 11 vessels

REG AREA	REG GEAR	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
3B1	DEM_SEINE	858	301	503	457	679	6052	4971	197	8768	7597
3B1	DREDGE						3437	10003	771	2177	
3B1	GN1	49981	100597	143850	85267	117597	210526	196336	180466	213700	164247
3B1	GT1	2745	7199	7542	4145	2361	49133	17339	17034	21252	27140
3B1	LL1	6962	12773	11632	8460	13611	809	7527	4026	1415	1992
3B1	NONE	321589	279834	228367	196976	238944	343631	359647	374678	346954	396650
3B1	OTTER	8197	5809	10608	6512	6815	7430	19478	23751	34663	51781
3B1	PEL_SEINE	1723	441	315	252	1148	1125	442	3466	252	1096
3B1	PEL_TRAWL		53	106	17		53				
3B1	POTS	72125	84747	163269	105493	106041	781512	859133	408138	477168	502402
3B1	TR1	3616	13405	19028	22638	21597	15800	18684	4932	18856	30215
3B1	TR2	10122	14372	14888	19943	19755	34859	75774	98526	123061	100450
3B1	TR3	360	162	956	1052	603	1619	3119	1544	507	5478
3B2	BEAM	32681	20795	45923	73273	111576	81068	38237	49726	63895	56069
3B2	BT1	204	4	4				4	4		4
3B2	BT2	2567	637	574	676	58	3466	14376	3650	802	261
3B2	DREDGE	85202	103978	106632	125628	164279	183741	170258	167121	174140	254094
3B2	GN1	277203	310649	473886	639122	641390	565616	555102	592653	482077	371376
3B2	GT1	110307	141442	243251	51469	123419	132229	121147	230749	162722	178731
3B2	LL1	150215	185215	121158	223379	256904	193040	273476	259039	275349	272793
3B2	NONE	400145	319791	265304	241312	247650	269798	294912	315079	296765	327154
3B2	OTTER	104230	121290	53281	81701	68334	110265	75189	45469	32884	39845
3B2	PEL_SEINE	969	5020	5225	3924	14327	18095	27139			
3B2	PEL_TRAWL	425	7226	316	3058	1196	13625	13159	19964	17865	10866
3B2	POTS	2151033	1977969	3855408	4019404	4129470	4128191	4067548	4275794	4205901	4252201
3B2	TR1	53653	74027	106819	172073	165212	145161	174062	200265	211144	134629
3B2	TR2	1047840	966629	1032910	1191938	1064981	959253	941263	1075229	882548	889613
3B2	TR3	4775	7434	6465	1983	164	1344	2769	4725	3360	2166
3B3	BEAM	4185	15887	745		149	149	347	62		
3B3	BT2	46341	44073	35255	61328	65598	55374	37649	26407	33732	51625
3B3	DREDGE	35422	170967	165851	164335	227297	189076	178185	197563	183166	128649
3B3	GN1	236069	242581	581413	1233830	1173083	1222671	1073271	934576	696090	704081
3B3	GT1	459688	469766	630019	465130	353821	384219	503202	777802	861366	776893
3B3	LL1	58748	69475	87057	149972	68164	84464	239074	316428	376729	342233
3B3	NONE	26077	28060	7750	24289	13867	13867		5794		
3B3	OTTER	61541	109479	8086	3660	2817	1693	51027	31562	48307	22179
3B3	PEL_SEINE										303
3B3	PEL_TRAWL	2592	4593	4694	8355	17874	17874	16249	7788	3636	5991
3B3	POTS	460898	544348	1221805	1260523	935385	792216	1657083	1213275	1382224	1394701
3B3	TR1	6901	6450	6447	26518	172434	125897	99165	80878	136035	136459
3B3	TR2	250380	102348	262295	375394	180269	201305	267964	381672	301177	293467
3B3	TR3	97158	120992	163184	125478	52603	52128	52326	63039	42104	57493
Sum		6645727	6690818	10092821	11178964	10781472	11401811	12516636	12393842	12122791	11992924

Table 5.3.6.1.2 Skagerrak, North Sea and Eastern Channel. Fishing effort (kWdays) by vessels <10m by country.

REG AREA	COUNTRY	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
3B1	DEN	363936	376922	379678	303712	375610	381497	377669	389910	367746	344714
3B1	SWE	114342	142771	221386	147500	153541	1074489	1194784	727619	881027	944334
3B2	DEN	421407	388486	367508	321918	382763	361730	317980	376195	347352	335727
3B2	ENG	1329676	1365227	2938590	3270361	3218856	2731080	2597354	3089443	2798937	2797999
3B2	FRA	130180	87111	57751	52761	59281	59281	44940	64959	44761	93480
3B2	GER		8359	33326	48357	31085	38899	26849	41101	34498	
3B2	NED	138247	155640	176535	174381	197396	215075	237511	185237	174048	200732
3B2	NIR	420	209	14136	1672		371		112	1121	
3B2	SCO	2401519	2237074	2729310	2959490	3099579	3398456	3544007	3482420	3408709	3361864
3B2	SWE									26	
3B3	ENG	356779	422216	1566408	2452694	2429908	2299272	2318911	2447658	2533846	2280236
3B3	FRA	1389221	1506803	1607091	1445793	832742	829871	1849140	1586097	1530504	1633838
3B3	GBG			1074		224					
3B3	NIR			0		112					
3B3	SCO			28	325	375	11790	7491	3091	216	
Sum		6645727	6690818	10092821	11178964	10781472	11401811	12516636	12393842	12122791	11992924

5.3.6.1 Catches (landings and discards) of cod and associated species by small boats by Member State

Landings are provided for the vessels under 10m in area 3b, for all countries except Belgium, for the top 10 species ranked according to landings in 2013 (Table 5.3.6.2.1). The main fishery is for edible crab, and secondly for cod, Nephrops and plaice. For the whole area 3b in 2013, the landings from vessels <10m represent around 5, 10, 6 and 2% of the total landings of cod, Nephrops, sole and plaice, respectively. Information by country is available from the STECF website.

The details by gear for cod are given in Table 5.3.6.2.2. Of the regulated gears passive gears and longlines are most important. However, substantial landings are also reported under category none for vessels <10m. Estimated discards are in general low, but especially for TR2 and TR1 higher discards rates above 0.2 occur. **It has to be noted that discard information is uncertain for small vessels.**

Table 5.3.6.2.1 Skagerrak (3b1), North Sea and 2 EU (3b2), Eastern Channel (3b3). Landings (t) by vessels <10m. Only top 10 species according to landings in 2013 are shown. Information for other species is available from the STECF website.

Area	Number	Species	2005 L	2006 L	2007 L	2008 L	2009 L	2010 L	2011 L	2012 L	2013 L
3B1	1	COD	844.853	663.915	483.495	496.6	435.831	476.975	552.518	527.72	527.316
3B1	2	PLE	453.646	609.06	447.482	662.895	476.247	599.66	625.172	564.329	449.576
3B1	3	OTH								0.5	204.052
3B1	4	NEP	128.885	117.663	134.017	144.151	152.831	182.633	141.108	203.146	186.992
3B1	5	MAC	48.23	65.753	42.343	54.688	52.488	109.264	98.053	114.464	124.505
3B1	6	CRE	65.935	52.118	57.794	71.623	107.777	109.979	118.472	126.86	124.484
3B1	7	HER	36.004	42.098	50.611	45.73	63.637	32.112	26.732	66.637	61.856
3B1	8	POL	39.495	22.097	20.318	18.41	42.011	36.722	42.693	36.561	39.893
3B1	9	DAB	23.388	15.58	17.721	23.027	25.774	23.733	41.898	59.228	36.308
3B1	10	ANF	7.397	1.812	4.592	3.967	1.643	5.055	3.525	9.974	34.232
3B2	1	CRE	1781.545	3739.904	3742.229	3460.745	3118.615	3438.855	3539.064	4153.483	5009.314
3B2	2	OTH	1678.817	1795.213	2337.169	2135.99	2610.571	2292.559	2259.518	2134.195	2018.682
3B2	3	NEP	1523.188	2185.857	1873.957	1315.745	1404.155	1108.504	1158.319	1153.229	1066.596
3B2	4	SCE	341.49	249.476	285.785	321.091	263.798	459.743	416.768	554.205	705.96
3B2	5	COD	898.826	979.952	747.505	954.227	1017.383	939.527	811.3	802.021	640.731
3B2	6	MAC	371.712	431.288	380.413	442.499	480.903	668.89	684.612	580.683	563.232
3B2	7	PLE	469.509	495.438	325.384	327.967	677.153	307.929	411.745	413.152	507.509
3B2	8	WHG	241.516	691.318	652.041	233.332	390.611	394.986	345.351	365.171	411.609
3B2	9	SOL	333.133	312.535	315.688	433.286	772.38	354.407	478.082	361.888	402.374
3B2	10	CSH	69.742	93.386	203.291	249.007	206.404	135.269	21.816	268.014	177.772
3B3	1	SOL	457.644	613.706	777.901	594.113	701.64	662.453	768.841	726.67	741.892
3B3	2	PLE	415.208	542.453	480.063	363.269	435.659	397.679	445.375	449.04	570.68
3B3	3	CRE	341.731	420.449	403.56	388.395	346.047	417.114	445.689	517.922	461.443
3B3	4	BSS	191.077	170.677	197.324	199.896	199.943	250.084	333.448	383.839	364.888
3B3	5	SCE	218.293	334.134	264.95	248.455	231.835	142.786	215.964	204.935	282.447
3B3	6	CSH	109.28	139.338	71.664	35.22	35.416	69.039	94.391	65.889	137.52
3B3	7	COD	193.18	276.738	217.358	163.102	153.658	146.684	145.938	123.953	122.934
3B3	8	POL	15.333	24.976	25.955	32.528	29.604	79.037	100.922	91.495	93.154
3B3	9	RAJ									86.878
3B3	10	TUR	35.039	40.633	36.216	47.35	38.987	50.808	58.045	56.759	53.486

Table 5.3.6.2.2 Skagerrak, North Sea and Eastern Channel. Landings (t), discards (t) and discard rates of cod by major regulated and unregulated gears, 2008-2013. Information from older years is available on the website.

reg_area	reg_gear	species	specon	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R	2013 L	2013 D	2013 R
3B1	GN1	COD	NONE	186.126	0	0	116.541	5.342	0.044	102.631	2.496	0.024	89.88	2.311	0.025	88.489	2.411	0.027	66.654	0.869	0.013
3B1	GT1	COD	NONE	0.361	0	0	0.015	0.001	0.063	0.094	0.005	0.051	0.261	0.005	0.019	0.99	0.027	0.027	29.851	0.55	0.018
3B1	LL1	COD	NONE	15.346	0	0	0.122	0	0	3.007	0	0	9.297	0.019	0.002	3.852	0.001	0	8.319	0.001	0
3B1	NONE	COD	NONE	279.041	0	0	307.53	0	0	364.615	0	0	446.618	0	0	398.53	0	0	358.049	0	0
3B1	OTTER	COD	NONE	0.113	0.12	0.515	0	0.004	1							0.005	0.026	0.839	0	0.014	1
3B1	PEL_TRAWL	COD	NONE				0.294	0	0												
3B1	POTS	COD	NONE				0.033	0	0	0.131	0	0	0.16	0	0	0.063	0	0	0.388	0	0
3B1	TR1	COD	NONE	6.622	4.417	0.4	10.105	11.143	0.524	3.711	12.509	0.771	0.504	2.892	0.852	14.586	24.212	0.624	30.85	11.386	0.27
3B1	TR2	COD	CPART11				0	0.142	1	0	0.96	1				0	0.811	1	0	2.161	1
3B1	TR2	COD	IIA83B	0	0.159	1															
3B1	TR2	COD	NONE	8.991	5.148	0.364	1.191	4.391	0.787	2.786	9.74	0.778	5.798	16.777	0.743	21.205	16.112	0.432	33.146	19.197	0.367
3B1	TR3	COD	NONE																0.059	0	0
3B2	BEAM	COD	NONE							0.505	0	0	0.198	0	0				0.003	0	0
3B2	BT1	COD	NONE										0	0					0	0	
3B2	BT2	COD	NONE				36.081	7.129	0.165	0.023	0.003	0.115	2.024	0.406	0.167						
3B2	DREDGE	COD	NONE	0.184	0	0	1.005	0	0	0.048	0	0	3.896	0	0	0.007	0	0	0.269	0	0
3B2	GN1	COD	NONE	421.614	0.315	0.001	387.767	0	0	293.015	3.786	0.013	221.903	13.599	0.058	219.361	8.29	0.036	126.442	7.526	0.056
3B2	GT1	COD	NONE	29.364	0.027	0.001	77.406	0.483	0.006	45.376	0.007	0	50.825	3.755	0.069	45.224	1.751	0.037	29.417	3.318	0.101
3B2	LL1	COD	NONE	242.717	0	0	241.767	0	0	292.404	0	0	147.653	1.229	0.008	208.485	0.88	0.004	149.448	0.079	0.001
3B2	NONE	COD	NONE	130.104	0	0	75.055	0	0	92.426	0	0	142.565	0	0	131.276	0	0	172.574	0	0
3B2	OTTER	COD	NONE	0.134	0.005	0.036	0.165	0	0	0.524	0	0	0.176	0	0	0.623	0.026	0.04	0.712	0	0
3B2	PEL_SEINE	COD	NONE				0	0													
3B2	PEL_TRAWL	COD	NONE										0.004	0	0	0.031	0	0			
3B2	POTS	COD	NONE	15.056	0	0	39.325	0	0	45.459	0.252	0.006	55.014	0	0	54.204	0	0	48.238	0	0
3B2	TR1	COD	CPART13C				61.436	3.57	0.055	64.599	7.564	0.105	62.353	5.211	0.077	57.056	7.748	0.12	31.788	8.105	0.203
3B2	TR1	COD	NONE	58.586	33.625	0.365	8.029	2.114	0.208	2.646	2.223	0.457	4.181	0.859	0.17	7.437	1.706	0.187	3.738	0.361	0.088
3B2	TR2	COD	CPART13C				88.075	38.779	0.306	102.03	112.323	0.524	119.809	72.654	0.377	77.887	5.45	0.065	77.817	32.941	0.297
3B2	TR2	COD	NONE	56.462	11.92	0.174	1.272	0.5	0.282	0.472	0.196	0.293	0.699	0.328	0.319	0.43	0.054	0.112	0.285	0.072	0.202
3B2	TR3	COD	NONE	0.006	0	0															
3B3	BEAM	COD	NONE										0.012	0	0						
3B3	BT2	COD	NONE	0.147	0.073	0.332	0.153	0.015	0.089	0.772	0.004	0.005	0.02	0.001	0.048	0.267	0.018	0.063	0.37	0.001	0.003
3B3	DREDGE	COD	NONE	0.035	0	0	0.013	0	0				0.208	0	0	0.006	0	0	0.099	0	0
3B3	GN1	COD	NONE	96.203	0	0	79.319	0	0	76.268	0	0	66.423	39.983	0.376	44.963	0	0	43.075	0	0
3B3	GT1	COD	NONE	37.172	0	0	50.993	5.936	0.104	49.14	3.699	0.07	50.695	85.365	0.627	52.872	4.454	0.078	60.003	0.447	0.007
3B3	LL1	COD	NONE	3.794	0	0	1.74	0	0	2.744	0	0	6.506	0	0	3.587	0	0	3.17	0	0
3B3	OTTER	COD	NONE							0.359	0.003	0.008	0.022	0	0	0.067	0	0	0.017	0	0
3B3	PEL_TRAWL	COD	NONE	0.002	0	0	0.002	0	0				0.016	0	0	0.004	0	0			
3B3	POTS	COD	NONE	2.746	0	0	3.656	0	0	4.04	0	0	3.151	0	0	0.773	0	0	0.546	0	0
3B3	TR1	COD	CPART13C				7.215	0	0	4.352	0	0	8.243	0	0	14.451	0	0	7.499	0	0
3B3	TR1	COD	NONE	12.476	0	0				0.045	0.005	0.1									
3B3	TR2	COD	CPART13C				5.961	4.989	0.456	8.254	0.382	0.044	9.056	3.311	0.268	5.471	0	0	7.415	0	0
3B3	TR2	COD	NONE	10.527	0.138	0.013	4.606	0	0	0.71	0.13	0.155	1.586	0.014	0.009	1.492	0.13	0.08	0.74	0.111	0.13

5.3.7 ToR 4 Evaluation of fully documented fisheries FDF

The figures in this paragraph cover area 3b. In the electronic appendices, the information by subarea 3b1 (Skagerrak), 3b2 (North Sea) and 3b3 (Eastern Channel) are available.

5.3.7.1 Fishing effort of FDF by Member State and fisheries in comparison with fisheries not working under FDF provisions

Table 5.3.7.1.1 shows that during 2011 nominal fishing effort (KW*days) by vessels operating in Fully Documented Fisheries (FDF) trials in the Skagerrak, North Sea and Eastern Channel was a small proportion of the total effort (4.9%), but was significant for the main cod gear (27.3% of effort by otter trawls of ≥120 mm mesh size (TR1)). Figures in this table can differ from last year's report due to resubmission of effort data for the period 2010 – 2012.

In 2012 FDF was still a small proportion of the total effort (5.1%), but it was increasing. The significance for the main cod gear has increased further and was 28.8% in 2012. All FDF countries contributed to this increase. However, in 2013 the total effort in FDF fisheries is slightly decreased from 5.5% to 5.1%. The total effort for the main gear, TR1, decreased from 28.8% to 28.4%.

With respect to the number of vessels that participate in FDF, EWG14-06 assumes that only vessels of the TR1 gear group target cod. The number of TR1 vessels participating in FDF increased from 44 in 2011 to 48 in 2012. In 2013 the number of vessels decreased to 46. These numbers must be used with care because some TR1 vessels also apply GN1 gears, so overlap can occur.

Table 5.3.7.1.1 Skagerrak, North Sea and Eastern Channel: (A part 1) total fishing effort for countries with Fully Documented Fisheries (FDF, REM/CCTV), (B) FDF (REM/CCTV) nominal fishing effort (kW days) and C) the percentage of total effort attributable to FDFs.

Table A, part 1

COUNTRY	GEAR	2011	2012	2013
DEN	BEAM	583866	851414	910888
	BT1	433062	440886	454445
	BT2	440	242	5884
	DEM_SEINE	104	1190	
	DREDGE	396732	385786	297041
	GN1	1443013	1323145	1331779
	GT1	223000	358745	522596
	LL1	62587	51543	29276
	NONE	58471	69657	59002
	OTTER	5841057	2905333	5523324
	PEL_SEINE	337529	269988	447815
	PEL_TRAWL	3613072	4619017	6092417
	POTS	6205	6970	12888
	TR1	4583311	4592940	4331818
	TR2	3312188	2749364	2157950
	TR3	337402	480789	957160
DEN Total		21232039	19107009	23134283
ENG	BEAM	156166	325638	384971
	BT1	169873	424874	575558
	BT2	2942307	2733012	3080589
	DEM_SEINE			
	DREDGE	711217	338768	380225
	GN1	252169	174777	221225
	GT1	20078	14155	19863
	LL1	44458	51111	77294
	OTTER	182918	422	9495
	PEL_TRAWL	896373	1417868	1581577
	POTS	1612911	1619790	1794848
	TR1	2140059	1872403	2221660
	TR2	1620562	1619726	1245453
	TR3	621	246	298
ENG Total		10749712	10592790	11593056
GER	BEAM	3901769	5365103	5112720
	BT1	1535	2793	65906
	BT2	1242171	1071896	1290574
	DEM_SEINE			
	DREDGE	122438	6426	10962
	GN1	225797	287472	259976
	GT1	924		
	NONE	32656	30500	
	OTTER	101740	16158	95489
	PEL_TRAWL	931868	1149843	1617352
	POTS			
	TR1	1652164	1341333	1501458
	TR2	441597	335549	337436
	TR3			184
GER Total		8654659	9607073	10292057

Table B

COUNTRY	GEAR	2011	2012	2013
DEN	BEAM			
	BT1			
	BT2			
	DEM_SEINE			
	DREDGE			
	GN1	12668	83232	95642
	GT1	0	3249	6156
	LL1	11445	0	994
	NONE	10560	9020	220
	OTTER	660		
	PEL_SEINE			
	PEL_TRAWL			7260
	POTS			
	TR1	2178914	2180822	2060752
	TR2	22030	72463	20600
	TR3			
DEN Total		2236277	2348786	2191624
ENG	BEAM			
	BT1			
	BT2			
	DEM_SEINE			
	DREDGE	2685		
	GN1	31604	35681	11890
	GT1			
	LL1			
	OTTER	3395		480
	PEL_TRAWL			
	POTS			
	TR1	694484	656180	1014058
	TR2			
	TR3			
ENG Total		732168	691861	1026428
GER	BEAM			
	BT1			
	BT2			
	DEM_SEINE			
	DREDGE			
	GN1			
	GT1			
	NONE			
	OTTER			
	PEL_TRAWL			
	POTS			
	TR1		335331	410324
	TR2			
	TR3			
GER Total			335331	410324

Table C

2011	2012	2013
0.0%	0.0%	0.0%
0.0%	0.0%	0.0%
0.0%	0.0%	0.0%
0.0%	0.0%	0.0%
0.0%	0.0%	0.0%
0.9%	6.3%	7.2%
0.0%	0.9%	1.2%
18.3%	0.0%	3.4%
18.1%	12.9%	0.4%
0.0%	0.0%	0.0%
0.0%	0.0%	0.0%
0.0%	0.0%	0.1%
0.0%	0.0%	0.0%
47.5%	47.5%	47.6%
0.7%	2.6%	1.0%
0.0%	0.0%	0.0%
10.5%	12.3%	9.5%
0.0%	0.0%	0.0%
0.0%	0.0%	0.0%
0.0%	0.0%	0.0%
0.0%	0.0%	0.0%
0.4%	0.0%	0.0%
12.5%	20.4%	5.4%
0.0%	0.0%	0.0%
0.0%	0.0%	0.0%
1.9%	0.0%	5.1%
0.0%	0.0%	0.0%
0.0%	0.0%	0.0%
32.5%	35.0%	45.6%
0.0%	0.0%	0.0%
0.0%	0.0%	0.0%
6.8%	6.5%	8.9%
0.0%	0.0%	0.0%
0.0%	0.0%	0.0%
0.0%	0.0%	0.0%
0.0%	0.0%	0.0%
0.0%	0.0%	0.0%
0.0%	0.0%	0.0%
0.0%	0.0%	0.0%
0.0%	0.0%	0.0%
0.0%	0.0%	0.0%
0.0%	0.0%	0.0%
0.0%	25.0%	27.3%
0.0%	0.0%	0.0%
0.0%	0.0%	0.0%
0.0%	3.5%	4.0%

Table 5.3.7.1.1. (ctd.)

NED	BEAM	4126270	5642413	6270506	NED	BEAM	442	81897	178347	0.0%	1.5%	2.8%
	BT1	308958	1090258	1210021		BT1				0.0%	0.0%	0.0%
	BT2	25777844	22428296	23823379		BT2		14586	4862	0.0%	0.1%	0.0%
	DEM_SEINE		9500	442		DEM_SEINE		4000		0.0%	42.1%	0.0%
	DREDGE	497268	565191	720024		DREDGE				0.0%	0.0%	0.0%
	GN1	316070	295035	233663		GN1	4862	4420	7514	1.5%	1.5%	3.2%
	GT1	21431	29054	7442		GT1	663	884		3.1%	3.0%	0.0%
	OTTER	4111	53293	412		OTTER		442		0.0%	0.8%	0.0%
	PEL_SEINE					PEL_SEINE				0.0%	0.0%	0.0%
	PEL_TRAWL	2242925	4105752	4525042		PEL_TRAWL		1326		0.0%	0.0%	0.0%
	POTS	6133	9397	3412		POTS				0.0%	0.0%	0.0%
	TR1	1176692	1329299	1321173		TR1	197344	411771	459047	16.8%	31.0%	34.7%
	TR2	1921901	1984193	2053813		TR2	211502	435725	500812	11.0%	22.0%	24.4%
	TR3	23268	25897	50615		TR3		221		0.0%	0.9%	0.0%
NED Total		36422871	37567578	40219944	NED Total		414813	955272	1150582	1.1%	2.5%	2.9%
SCO	BEAM				SCO	BEAM				0.0%	0.0%	0.0%
	BT1					BT1				0.0%	0.0%	0.0%
	BT2		68262	217190		BT2				0.0%	0.0%	0.0%
	DEM_SEINE	1125	16454	7109		DEM_SEINE				0.0%	0.0%	0.0%
	DREDGE	2209299	1959531	2498996		DREDGE				0.0%	0.0%	0.0%
	GN1	607650	569749	422532		GN1				0.0%	0.0%	0.0%
	LL1	183352	68192	15395		LL1				0.0%	0.0%	0.0%
	NONE	59440	70360	163095		NONE				0.0%	0.0%	0.0%
	OTTER	668510	441398	636317		OTTER				0.0%	0.0%	0.0%
	PEL_SEINE	61300	21286	143745		PEL_SEINE				0.0%	0.0%	0.0%
	PEL_TRAWL	1283926	1685322	1677789		PEL_TRAWL				0.0%	0.0%	0.0%
	POTS	1060237	1022054	984898		POTS				0.0%	0.0%	0.0%
	TR1	9997529	9306627	8349843		TR1	2871664	2585992	1880832	28.7%	27.8%	22.5%
	TR2	6826480	5314452	3607273		TR2			2191	0.0%	0.0%	0.1%
	TR3		20706	1567		TR3				0.0%	0.0%	0.0%
SCO Total		22958848	20564393	18725749	SCO Total		2871664	2585992	1883023	12.5%	12.6%	10.1%
Grand Total		100018129	97438843	103965089	Grand Total		6254922	6917242	6661981	6.3%	7.1%	6.4%

Table A, part 2
Effort of all IIa countries by gear

GEAR	2011	2012	2013	GEAR	2011	2012	2013	2011	2012	2013
BEAM	9012685	12537125	13107337	BEAM	442	81897	178347	0.0%	0.7%	1.4%
BT1	1584796	2922996	3537943	BT1				0.0%	0.0%	0.0%
BT2	34176452	29845342	31810563	BT2		14586	4862	0.0%	0.0%	0.0%
DEM_SEINE	1229	27144	7551	DEM_SEINE		4000		0.0%	14.7%	0.0%
DREDGE	4374761	3637003	4347285	DREDGE	2685			0.1%	0.0%	0.0%
GN1	3063752	2884871	2676491	GN1	49134	123333	115046	1.6%	4.3%	4.3%
GT1	2867811	2894668	3033567	GT1	663	4133	6156	0.0%	0.1%	0.2%
LL1	393261	262862	251008	LL1	11445			2.9%	0.0%	0.0%
NONE	252851	254844	280888	NONE	10560	9020	220	4.2%	3.5%	0.1%
OTTER	10045822	5854976	9113376	OTTER	4055	442	480	0.0%	0.0%	0.0%
PEL_SEINE	1022581	906510	992585	PEL_SEINE				0.0%	0.0%	0.0%
PEL_TRAWL	11132494	16661586	18618540	PEL_TRAWL		1326		0.0%	0.0%	0.0%
POTS	3736078	3897788	3908492	POTS				0.0%	0.0%	0.0%
TR1	21771831	21431463	20532862	TR1	5942406	6170096	5825013	27.3%	28.8%	28.4%
TR2	23963410	21634967	18024933	TR2	233532	508188	523603	1.0%	2.3%	2.9%
TR3	488673	623041	1097489	TR3		221		0.0%	0.0%	0.0%
Grand Total	127888487	126277186	131340910	Grand Total	6254922	6917242	6653727	4.9%	5.5%	5.1%

5.3.7.2 Catches (landings and discards) of cod and other species taken by FDF fisheries by Member State and fisheries in comparison with fisheries not working under FDF provisions

Cod catches were recorded in fisheries using TR1, TR2, GN1 and Pots (Table 5.3.7.2.1), but most catches (94.8% of total FDF catches) were from vessels using TR1 gears. In total, 36% of cod catches by EU vessels were taken during FDF trials; 52%, 38%, 62%, 36% and 31% of German, Danish, English, Dutch and Scottish cod catches respectively.

Table 5.3.7.2.1 Skagerrak, North Sea and Eastern Channel: (A part 1) total catches for cod for countries with Fully Documented Fisheries (FDF, REM/CCTV), (B) total catches (tonnes), and (A part 2, C) the percentage of catches attributed to FDFs.

Table A, part1

country	reg_gear	2011	2012	2013
DEN	BEAM	0	0	5
	BT1	34	56	58
	BT2	0	0	0
	DEM_SEINE	1	0	0
	DREDGE	0	0	0
	GN1	2478	1961	1819
	GT1	124	183	188
	LL1	77	14	5
	NONE	8	19	6
	OTTER	61	80	116
	PEL_SEINE	0	0	0
	PEL_TRAWL	1	1	14
	POTS	0	0	0
	TR1	4509	5114	4931
	TR2	2383	2175	1404
	TR3	0	0	17
DEN Total		9676	9604	8565
ENG	BEAM	0	0	0
	BT1	3	4	1
	BT2	55	41	31
	DREDGE	0	0	0
	GN1	219	214	69
	GT1	9	3	2
	LL1	7	4	1
	OTTER	1	0	0
	PEL_TRAWL	0	0	0
	POTS	5	6	6
	TR1	1372	962	2103
	TR2	286	153	79
	TR3	0	0	0
ENG Total		1957	1388	2293
GER	BEAM	0	0	0
	BT1	0	0	1
	BT2	37	37	22
	DEM_SEINE	0	0	0
	GN1	266	263	176
	GT1	0	0	0
	OTTER	6	0	0
	PEL_TRAWL	4	0	0
	TR1	2092	2328	2000
	TR2	95	47	29
	TR3	0	0	0
GER Total		2500	2674	2227

Table B

country	reg_gear	2011	2012	2013
DEN	BEAM	0	0	0
	BT1	0	0	0
	BT2	0	0	0
	DEM_SEINE	0	0	0
	DREDGE	0	0	0
	GN1	56	242	299
	GT1	0	4	4
	LL1	57	0	0
	NONE	0	0	0
	OTTER	0	0	0
	PEL_SEINE	0	0	0
	PEL_TRAWL	0	0	0
	POTS	0	0	0
	TR1	2575	2967	2648
	TR2	25	19	9
	TR3	0	0	0
DEN Total		2712	3232	2960
ENG	BEAM	0	0	0
	BT1	0	0	0
	BT2	0	0	0
	DREDGE	0	0	0
	GN1	151	185	30
	GT1	0	0	0
	LL1	0	0	0
	OTTER	0	0	0
	PEL_TRAWL	0	0	0
	POTS	0	0	0
	TR1	694	635	1693
	TR2	0	0	0
	TR3	0	0	0
ENG Total		844	820	1723
GER	BEAM	0	0	0
	BT1	0	0	0
	BT2	0	0	0
	DEM_SEINE	0	0	0
	GN1	0	0	0
	GT1	0	0	0
	OTTER	0	0	0
	PEL_TRAWL	0	0	0
	TR1	0	1378	1155
	TR2	0	0	0
	TR3	0	0	0
GER Total		0	1378	1155

Table C

2011	2012	2013
0,0%	0,0%	0,0%
0,0%	0,0%	0,0%
0,0%	0,0%	0,0%
0,0%	0,0%	0,0%
0,0%	0,0%	0,0%
2,3%	12,4%	16,4%
0,0%	2,1%	2,1%
73,4%	0,0%	0,0%
0,0%	0,0%	0,0%
0,0%	0,0%	0,0%
0,0%	0,0%	0,0%
0,0%	0,0%	0,4%
0,0%	0,0%	0,0%
57,1%	58,0%	53,7%
1,0%	0,9%	0,6%
0,0%	0,0%	0,0%
28,0%	33,7%	34,6%
0,0%	0,0%	0,0%
0,0%	0,0%	0,0%
0,0%	0,0%	0,0%
8,3%	0,0%	0,0%
68,8%	86,6%	43,5%
0,0%	0,0%	0,0%
0,0%	0,0%	0,0%
0,0%	0,0%	0,0%
0,0%	0,0%	0,0%
0,0%	0,0%	0,0%
50,6%	65,9%	80,5%
0,0%	0,0%	0,0%
0,0%	0,0%	0,0%
43,2%	59,1%	75,1%
0,0%	0,0%	0,0%
0,0%	0,0%	0,0%
0,0%	0,0%	0,0%
0,0%	0,0%	0,0%
0,0%	0,0%	0,0%
0,0%	0,0%	0,0%
0,0%	0,0%	0,0%
0,0%	0,0%	0,0%
0,0%	59,2%	57,7%
0,0%	0,0%	0,0%
0,0%	0,0%	0,0%
0,0%	51,5%	51,8%

Table 5.3.7.2.1 (ctd.)

NED	BEAM	6	36	9	NED	BEAM	0	31	3	0,0%	86,1%	33,3%
	BT1	18	17	10		BT1	0	0	0	0,0%	0,0%	0,0%
	BT2	1127	931	489		BT2	0	0	0	0,0%	0,0%	0,0%
	DEM_SEINE	0	4	0		DEM_SEINE	0	3	0	0,0%	75,0%	0,0%
	DREDGE	0	0	0		DREDGE	0	0	0	0,0%	0,0%	0,0%
	GN1	29	24	14		GN1	14	11	0	48,6%	46,2%	0,0%
	GT1	11	8	10		GT1	1	1	0	9,4%	11,9%	0,0%
	LL1	0	0	0		LL1	0	0	0	0,0%	0,0%	0,0%
	NONE	0	0	0		NONE	0	0	0	0,0%	0,0%	0,0%
	OTTER	1	1	0		OTTER	0	0	0	0,0%	0,0%	0,0%
	PEL_TRAWL	10	2	0		PEL_TRAWL	0	2	0	0,0%	100,0%	0,0%
	TR1	642	875	872		TR1	351	669	639	54,7%	76,5%	73,3%
	TR2	339	224	168		TR2	40	44	31	11,8%	19,6%	18,5%
	TR3	1	0	0		TR3	0	0	0	0,0%	0,0%	0,0%
NED Total		2183	2122	1573	NED Total		406	761	673	18,6%	35,9%	42,8%
SCO	BEAM	0	0	0	SCO	BEAM	0	0	0	0,0%	0,0%	0,0%
	BT1	0	0	0		BT1	0	0	0	0,0%	0,0%	0,0%
	BT2	0	1	2		BT2	0	0	0	0,0%	0,0%	0,0%
	DEM_SEINE	0	15	3		DEM_SEINE	0	0	0	0,0%	0,0%	0,0%
	DREDGE	1	2	1		DREDGE	0	0	0	0,0%	0,0%	0,0%
	GN1	1	1	0		GN1	0	0	0	0,0%	0,0%	0,0%
	LL1	0	0	0		LL1	0	0	0	0,0%	0,0%	0,0%
	NONE	0	0	13		NONE	0	0	0	0,0%	0,0%	0,0%
	OTTER	13	47	2		OTTER	0	0	0	0,0%	0,0%	0,0%
	PEL_SEINE	0	1	0		PEL_SEINE	0	0	0	0,0%	0,0%	0,0%
	POTS	1	0	0		POTS	0	0	0	0,0%	0,0%	0,0%
	TR1	11194	12696	15220		TR1	4263	4210	3372	38,1%	33,2%	22,2%
	TR2	1149	1121	415		TR2	0	0	1	0,0%	0,0%	0,3%
	TR3	0	1	1		TR3	0	0	0	0,0%	0,0%	0,0%
SCO Total		12359	13885	15656	SCO Total		4263	4210	3374	34,5%	30,3%	21,5%
Grand Total		28674	29673	30314	Grand Total		8225	10401	9884	28,7%	35,1%	32,6%

Table A, part 2
Catches of all IIa countries by gear

reg_gear	2011	2012	2013	reg_gear	2011	2012	2013	2011	2012	2013
BEAM	14	49	21	BEAM	0	31	3	0,0%	63,6%	14,2%
BT1	412	698	1396	BT1	0	0	0	0,0%	0,0%	0,0%
BT2	1571	1251	744	BT2	0	0	0	0,0%	0,0%	0,0%
DEM_SEINE	1	19	3	DEM_SEINE	0	3	0	0,0%	15,5%	0,0%
DREDGE	5	2	1	DREDGE	0	0	0	0,0%	0,0%	0,0%
GN1	3101	2533	2144	GN1	221	438	329	7,1%	17,3%	15,4%
GT1	379	438	400	GT1	1	5	4	0,3%	1,1%	1,0%
LL1	185	168	9	LL1	57	0	0	30,5%	0,0%	0,0%
NONE	41	73	39	NONE	0	0	0	0,0%	0,0%	0,0%
OTTER	304	339	229	OTTER	0	0	0	0,0%	0,0%	0,0%
PEL_SEINE	0	1	0	PEL_SEINE	0	0	0	0,0%	0,0%	0,0%
PEL_TRAWL	24	16	18	PEL_TRAWL	0	2	0	0,0%	12,9%	0,3%
POTS	11	13	9	POTS	0	0	0	0,0%	0,0%	0,0%
TR1	22328	23690	26847	TR1	8252	9893	9514	37,0%	41,8%	35,4%
TR2	6503	5785	4426	TR2	65	63	41	1,0%	1,1%	0,9%
TR3	4	3	18	TR3	0	0	0	0,0%	0,0%	0,0%
Grand Total	34884	35078	36304	Grand Total	8595	10435	9891	24,6%	29,7%	27,2%

5.3.7.3 Comparative analysis of cod selectivity by FDF fisheries and non-FDF fisheries

Because of software problems when aggregating data it was not possible for the EWG to review catch data or undertake ToR based on catch data.

The following is based on analysis of 2012 data

The analysis is done only for area 3b2 (North Sea), TR1 in 2012 for countries that raise FDF data separately. These countries are Denmark, Scotland and Sweden. It should be noted that no information is available how gaps in the sampling data are treated (e.g., missing quarters). The other countries with FDF fisheries England, Germany, and The Netherlands do not raise them separately (because there are not enough trips to do this). The catches in numbers for a certain age are expressed as a percentage of the total catch numbers (TC). Note that Sweden has no FDF fisheries in area 3b2. Note also that non FDF also includes FDF as the data call does not ask for information for non FDF separately. Therefore the analysis is biased and cannot show the full difference between non FDF and FDF fisheries.

The current figures and plots do not show a large difference between FDF and non FDF fisheries

Table 5.3.7.3.1 Age composition non FDF catches for cod.

COUNTRY	SPECON	Landings no	Discards no	Age 1C	1%TC	Age 2C	2%TC	Age 3C	3%TC	Age 4C	4%TC	Age 5C	5%TC	Age 6C	6%TC	Age 7C	7%TC	Age 8C	8%TC
DNK	none	1286.51	475.042	112.10	6.36%	632.75	35.92%	695.21	39.47%	185.47	10.53%	95.03	5.39%	32.83	1.86%	5.56	0.32%	1.71	0.10%
SCO	CPart13C	3172.98	1563.75	513.05	10.83%	880.15	18.58%	2206.41	46.58%	828.29	17.49%	155.62	3.29%	72.73	1.54%	75.54	1.59%	1.57	0.03%
SWE	none	117.746	36.617	8.79	5.69%	53.30	34.53%	62.84	40.71%	16.98	11.00%	8.70	5.63%	3.01	1.95%	0.51	0.33%	0.16	0.10%

Table 5.3.7.3.2 Age composition FDF catches for cod.

COUNTRY	SPECON	Landings no	Discards no	Age 1C	1%TC	Age 2C	2%TC	Age 3C	3%TC	Age 4C	4%TC	Age 5C	5%TC	Age 6C	6%TC	Age 7C	7%TC	Age 8C	8%TC
DNK	FDFIIA	921.324	126.593	62.97	6.01%	328.35	31.33%	446.61	42.62%	119.95	11.45%	63.24	6.03%	20.82	1.99%	4.01	0.38%	1.27	0.12%
SCO	FDFIIA	1711.6	124.252	90.87	4.95%	536.45	29.22%	818.41	44.58%	222.83	12.14%	117.48	6.40%	38.67	2.11%	7.45	0.41%	2.35	0.13%

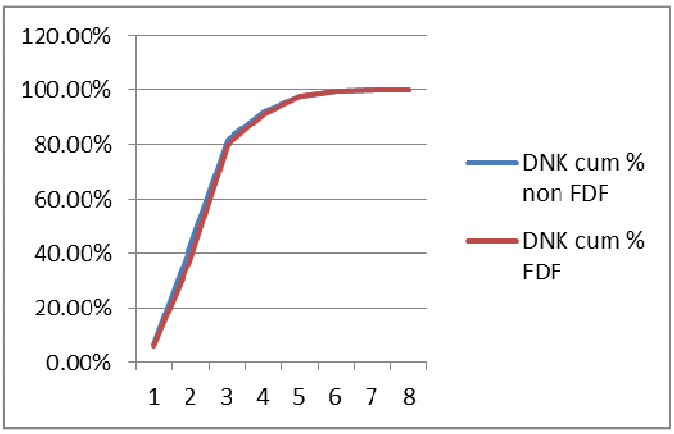


Figure 5.3.7.3.1 Cumulative percentage of catches over ages for Denmark.

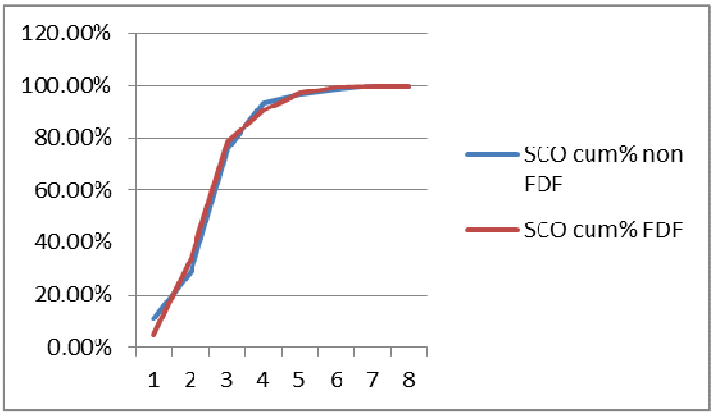


Figure 5.3.7.3.2 Cumulative percentage of catches over ages for Scotland.

5.3.8 ToR 5 Spatio-temporal patterns in effective effort by fisheries

Figures 5.3.8.1 - 5.3.8.8 show spatio-temporal patterns in fishing effort by regulated gears.

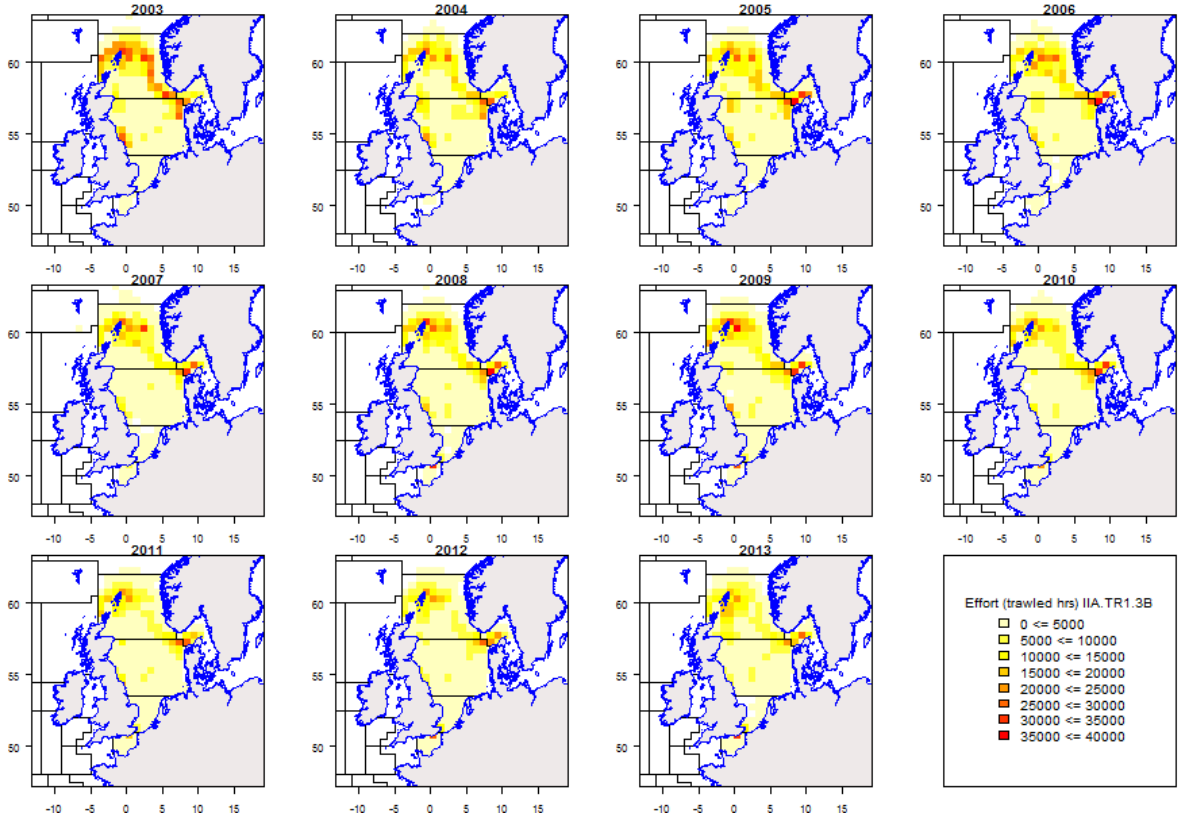


Figure 5.3.8.1. Patterns in spatio-temporal distribution for TR1 regulated gears.

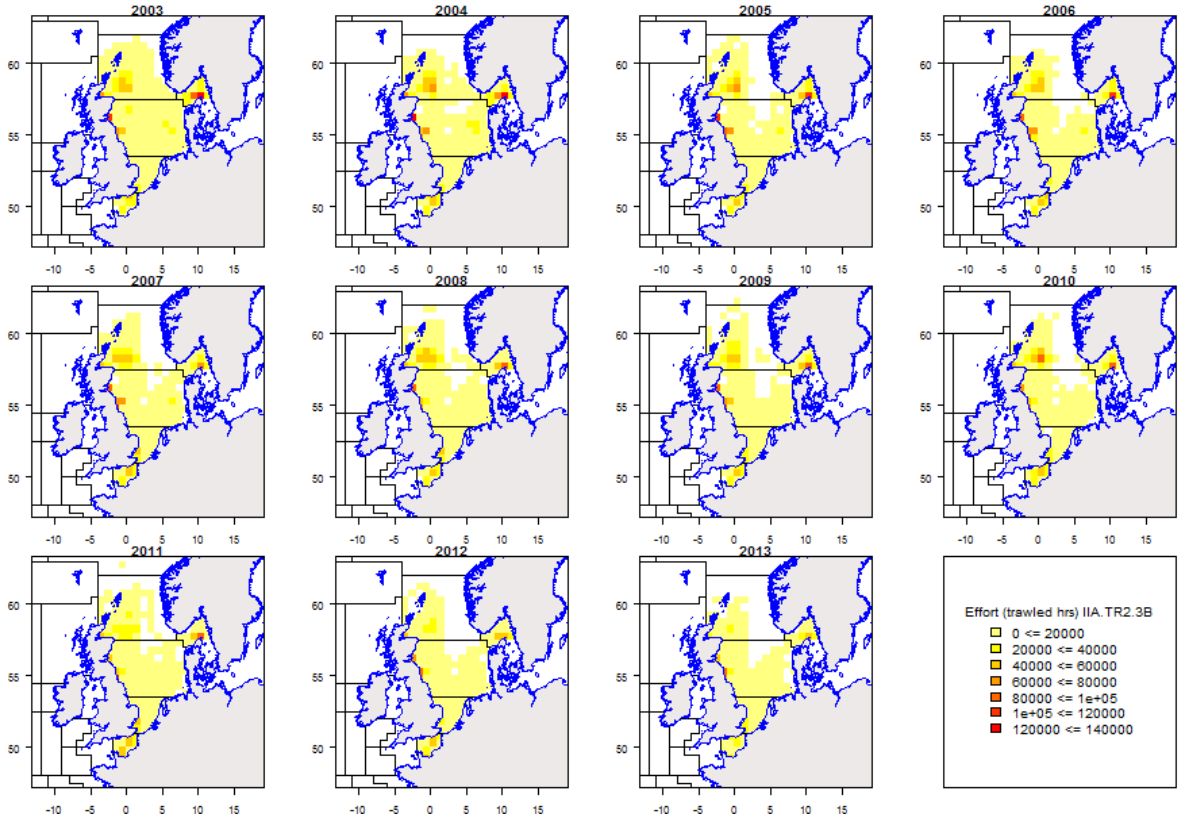


Figure 5.3.8.2. Patterns in spatio-temporal distribution for TR2 regulated gears.

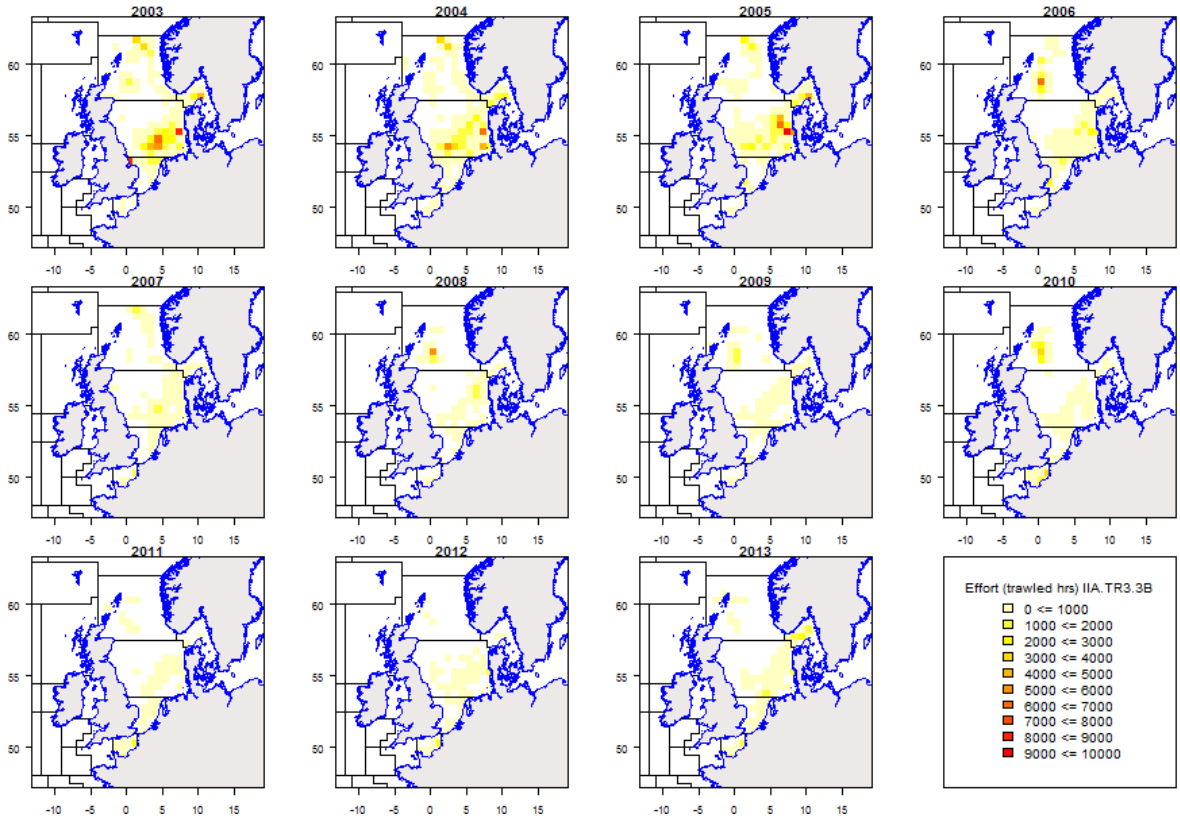


Figure 5.3.8.3. Patterns in spatio-temporal distribution for TR3 regulated gears.

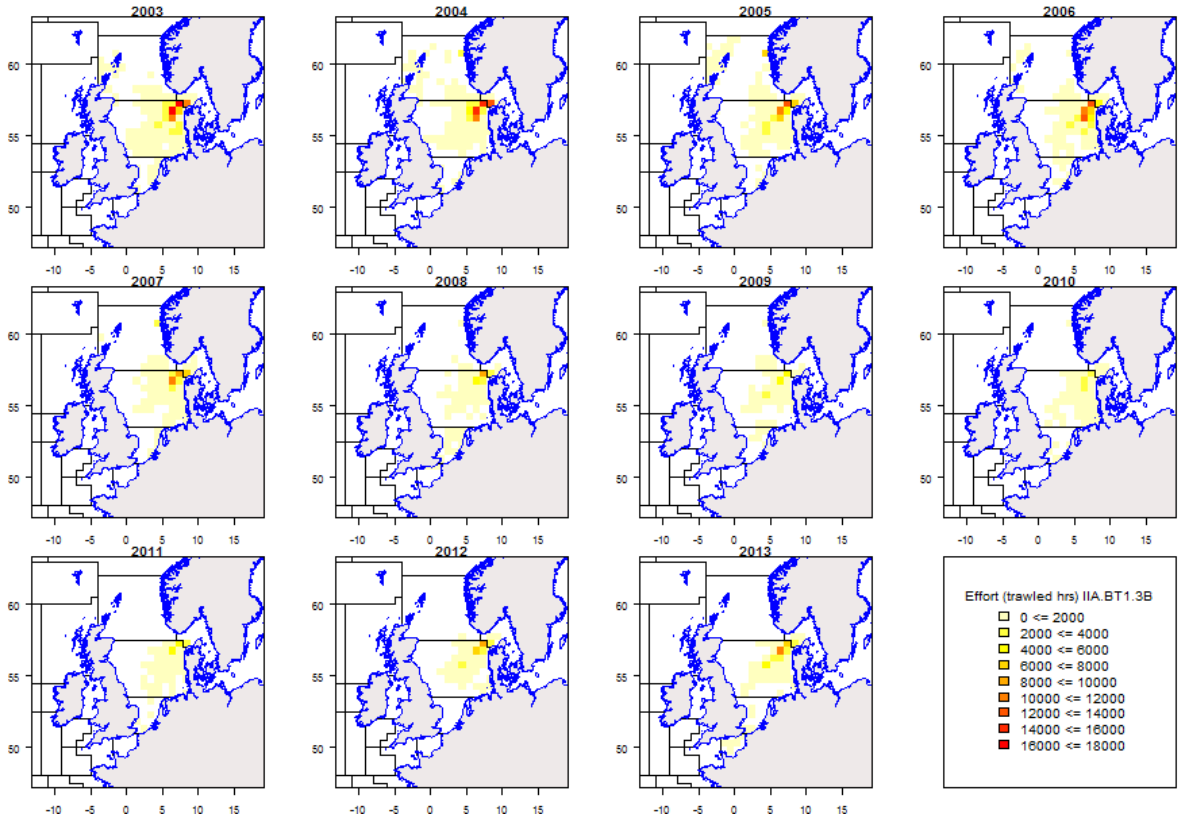


Figure 5.3.8.4. Patterns in spatio-temporal distribution for BT1 regulated gears.

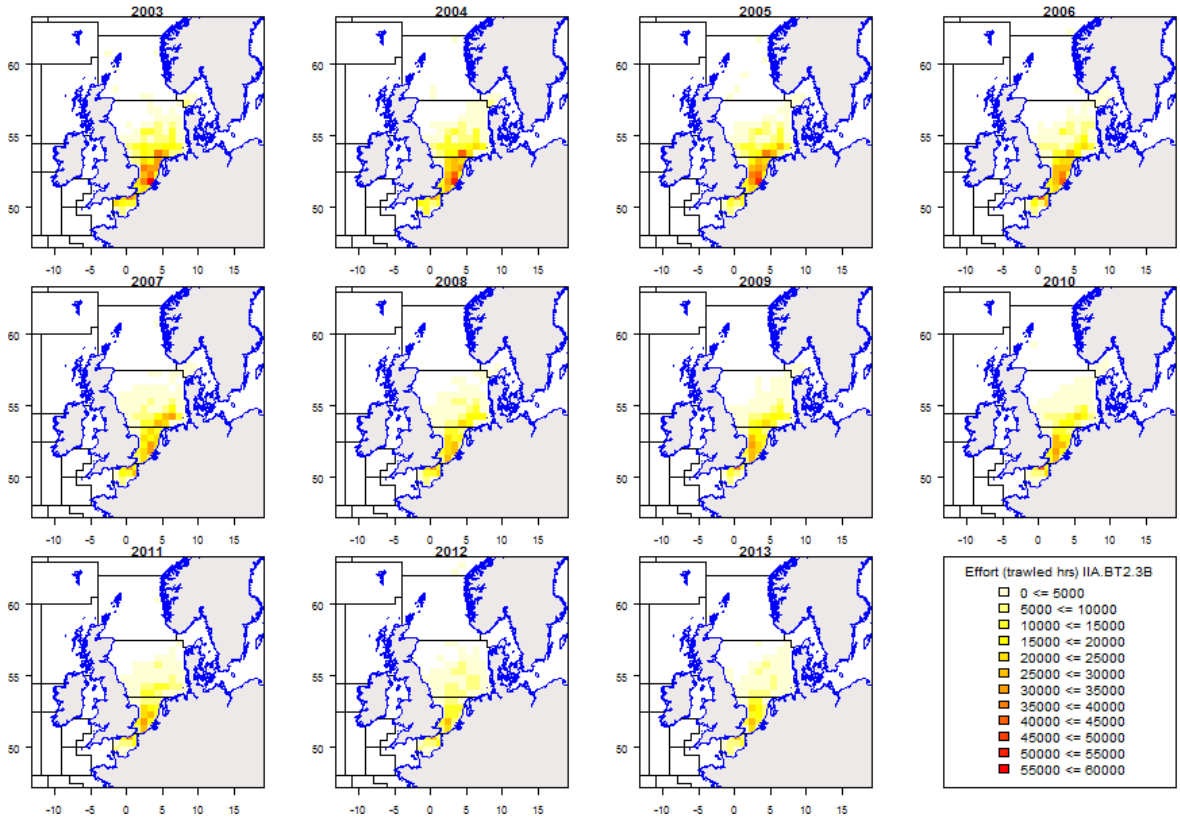


Figure 5.3.8.5. Patterns in spatio-temporal distribution for BT2 regulated gears.

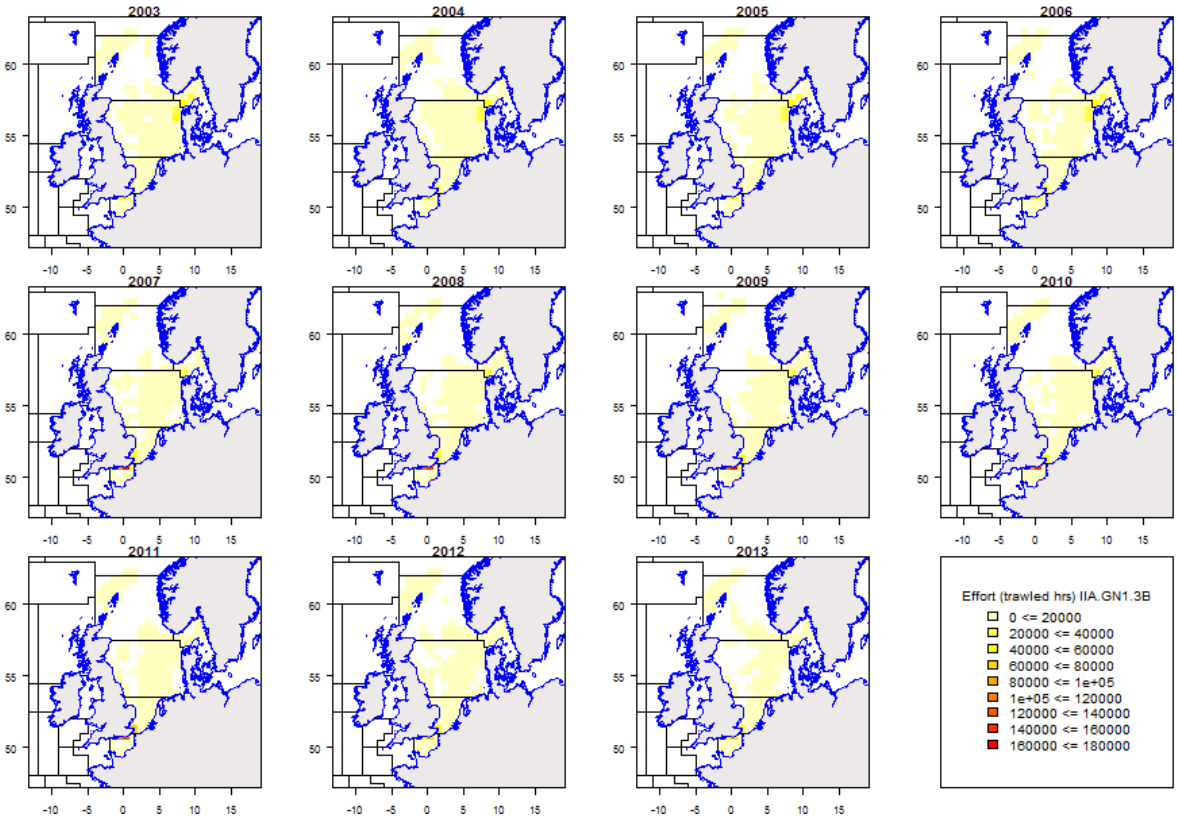

2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
Effort (trawled hrs) IIA.GN1.3B
0 <= 20000
20000 <= 40000
40000 <= 60000
60000 <= 80000
80000 <= 1e+05
1e+05 <= 120000
120000 <= 140000
140000 <= 160000
160000 <= 180000

Figure 5.3.8.6. Patterns in spatio-temporal distribution for GN1 regulated gears.

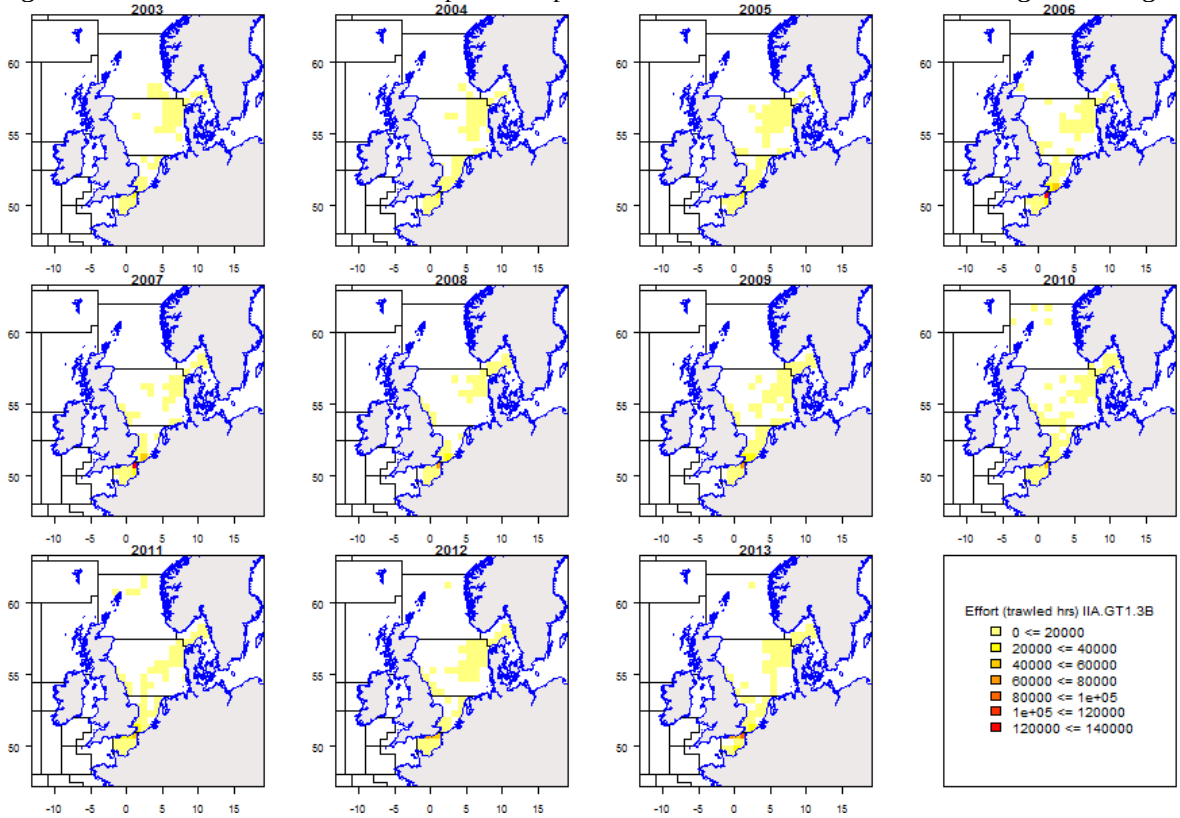


Figure 5.3.8.7. Patterns in spatio-temporal distribution for GT1 regulated gears.

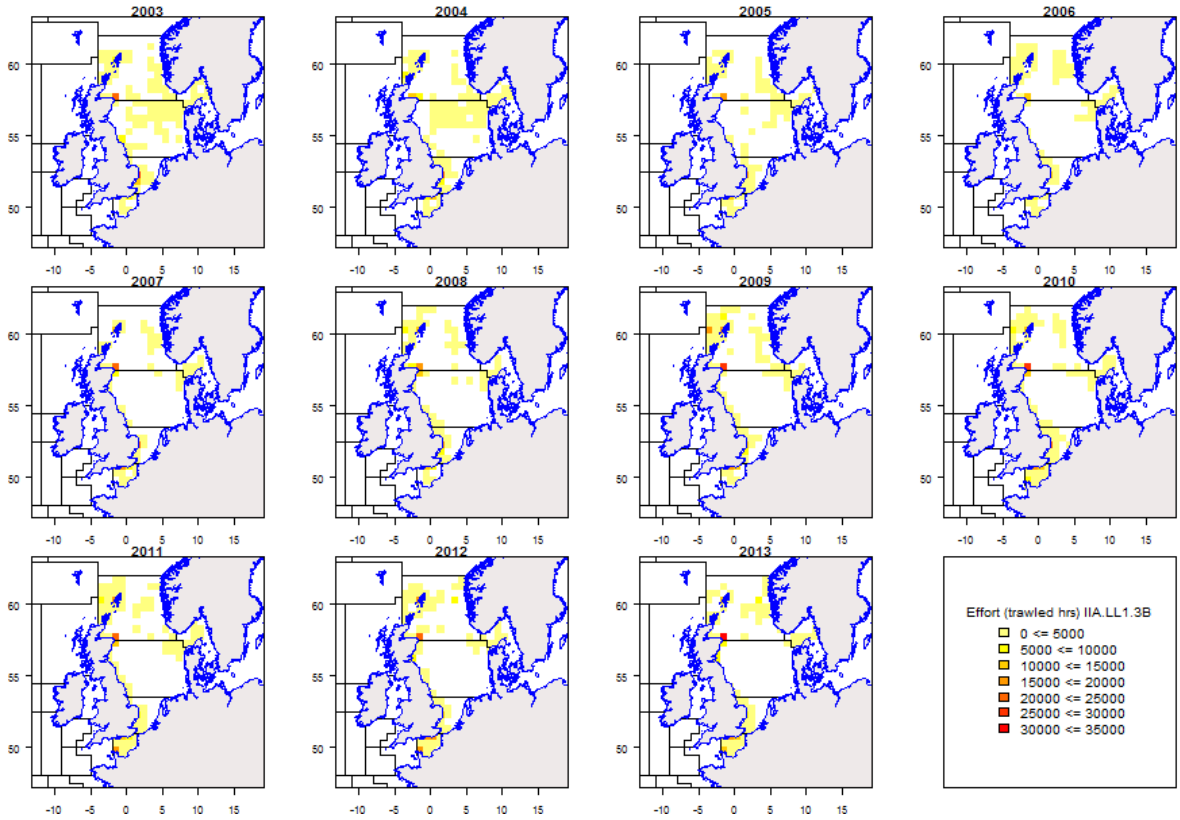


Figure 5.3.8.8. Patterns in spatio-temporal distribution for LL1 regulated gears.

5.3.9 ToR 6 Remarks on quality of catches and discard estimates

General comments on the quality of catch and discard estimates has been provided in section 4.

5.3.10 ToR 7 Estimation of conversion factors to be applied for effort transfers between regulated gear groups

STECF EWG 14-13 presents the estimated cod CPUE and respective effort transfer factors between donor and receiving regulated gear groups. Red cells in Table 5.3.10.1 are indicated to be imprecise due to lack of adequate discard information. Yellow cells indicate sufficient sampling and green cells good sampling information.

Table 5.3.11.1 Cod CPUE (average 2011-2013) and respective effort transfer factors between donor and receiving regulated gear groups. Red cells are indicated to be imprecise due to lack of adequate discard information. Yellow cells are covered by adequate discard information while green cells are considered well representative.

	donor gear	receiving gear								2011-2013		
		BT1	BT2	GN1	GT1	LL1	TR1	TR2	TR3	CPUE	LPUE	factor = CPUE donor/CPUE receiving
3b1	BT1		1	0.039	0.059	0.103	0.05	0.088	0.63	73	73	if factor > 1 then
3b1	BT2	0.014		0.001	0.001	0.001	0.001	0.001	0.01	1	1	factor = 1
3b1	GN1	1	1		1	1	1	1	1	1885	1855	
3b1	GT1	1	1	0.661		1	0.849	1	1	1246	1214	if CPUE=0 or LPUE = 0 then
3b1	LL1	1	1	0.377	0.571		0.484	0.861	1	711	711	CPUE=1 or LPUE=1
3b1	TR1	1	1	0.779	1	1		1	1	1468	1118	
3b1	TR2	1	1	0.438	0.663	1	0.563		1	826	414	
3b1	TR3	1	1	0.062	0.093	0.163	0.079	0.14		116	116	

	donor gear	receiving gear								2011-2013		
		BT1	BT2	GN1	GT1	LL1	TR1	TR2	TR3	CPUE	LPUE	factor = CPUE donor/CPUE receiving
3b2	BT1		1	0.42	1	0.47	0.294	1	1	323	265	if factor > 1 then
3b2	BT2	0.111		0.047	0.19	0.052	0.033	0.201	1	36	33	factor = 1
3b2	GN1	1	1		1	1	0.699	1	1	769	731	
3b2	GT1	0.585	1	0.246		0.275	0.172	1	1	189	174	if CPUE=0 or LPUE = 0 then
3b2	LL1	1	1	0.893	1		0.625	1	1	687	685	CPUE=1 or LPUE=1
3b2	TR1	1	1	1	1	1		1	1	1100	917	
3b2	TR2	0.554	1	0.233	0.947	0.261	0.163		1	179	75	
3b2	TR3	0.009	0.083	0.004	0.016	0.004	0.003	0.017		3	3	

	donor gear	receiving gear								2011-2013		
		BT1	BT2	GN1	GT1	LL1	TR1	TR2	TR3	CPUE	LPUE	factor = CPUE donor/CPUE receiving
3b3	BT1		1	0.233	1	1	0.436	1	1	88	88	if factor > 1 then
3b3	BT2	0.216		0.05	0.26	0.704	0.094	0.229	1	19	18	factor = 1
3b3	GN1	1	1		1	1	1	1	1	378	378	
3b3	GT1	0.83	1	0.193		1	0.361	0.88	1	73	70	if CPUE=0 or LPUE = 0 then
3b3	LL1	0.307	1	0.071	0.37		0.134	0.325	1	27	27	CPUE=1 or LPUE=1
3b3	TR1	1	1	0.534	1	1		1	1	202	196	
3b3	TR2	0.943	1	0.22	1	1	0.411		1	83	75	
3b3	TR3	0.148	0.684	0.034	0.178	0.481	0.064	0.157		13	13	

5.3.11 ToR 8 Estimation of partial fishing mortalities of cod, haddock, saithe, whiting, plaice and sole by area, Member State and fisheries and correlation between partial cod mortality and fishing effort by area, Member State and fisheries

Partial fishing mortalities and effort trends in areas 3b1, 3b2 and 3b3 are presented for regulated fisheries in relation to the estimated fishing mortality by ICES (2014) and the catches, landings and discards volumes in relation to the estimated total catch for the year available. The full list of all fisheries and species can be downloaded from the EWG's web page: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1413. The anticipated trend in fishing mortality as derived from the cod plan is also presented in the following Tables 5.3.10.1-9. Resulting regressions between Fpar and effort are shown in Fig. 5.3.10.2-10 for

regulated fisheries. The figures show statistical values for the regressions as follows i) the figures show effort and partial F relationships aggregated across special conditions for a nation and gear group (because the small number of data points for some special conditions do not allow for correlation estimation) and, b) the N and p-values are adjusted to account for auto-correlation providing a more robust conclusion on the correlation significance.

The partial F values compiled by STECF EWG 14-13 do not account for 100% of the total F value in 2013 as assessed by ICES in 2014. It should be noted that for all years, the sum of the partial F values calculated by STECF EWG 14-13 has been below the total F as assessed by ICES, in part because of fleets not evaluated by the group (e.g. Norway), in part because of catches by unregulated gears, and prior to 2005 because of unallocated removals which were estimated by the ICES assessment working group as an additional source of mortality on the stock.

Notwithstanding the above, it can be concluded from the estimated F in 2013 (Table 5.3.11.1) that the overall long term F target of 0.4 stipulated by the cod management plan has been reached. However, because the stock is still far below 150 000 tonnes a fishing mortality around 0.2 would be needed according to the plan. Unaccounted removals are no longer estimated for years after 2005 in the cod assessment. Discard mortality is generally high but has been reduced significantly since 2008 but increased again in 2013.

STECF EWG 14-13 notes that the correlations between the partial Fs and effort are significant for most metiers catching a larger amount of cod but insignificant for others (Figure 5.3.10.2-4). Overall, for regulated gears partial F and effort are correlated indicating that effective fisheries management by fishing effort in units of kWdays at sea may be possible, also as an auxiliary measure to catch constraints and technical measures. However, the partial Fs resulting from catches of the English and Dutch fishery using TR1 gears do not display a significant correlation between their partial F and fishing effort.

STECF EWG 14-13 notes that there are no indications of significant reductions in catchability coefficients for Scottish TR1 vessels operating entirely under provisions of Article 13.2.c (Figure 5.3.10.3.1). However, overall effort reductions have contributed to lower fishing mortalities on cod. The German and French fisheries operating under the provision of article 13.2.b are either negligible or have reduced their contribution to cod fishing mortalities.

The following tables 5.3.14.10-13 list the partial Fs of fisheries using effort regulated gears for plaice and sole in area 4. The Figures 5.3.10.5-6 display the respective regressions between partial Fs and the fishing effort deployed for the major fisheries for plaice and sole. For plaice and sole, major gears and fisheries catching these species show a significant correlation between F and effort, indicating that effective fisheries management by fishing effort in units of kWdays at sea may be possible, also as an auxiliary measure to catch constraints and technical measures.

Information for other species is available from the STECF website.

Table 5.3.10.1 **Cod** in area **3b1**. The left part of the table lists estimated F trajectories from the management plan and the ICES 2014 cod assessment, as well as partial Fs for **catches** of fisheries using regulated gears. The right part of the table lists the respective trends in fishing effort (kW days at sea). Cod plan article 13 assignments apply since 2009 or 2010, as interpreted from the background documents of national declarations *). A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

From 2008 (fixed baseline) F reductions of 10 percent until F<=0.4 (Fmsy=0.19)																													
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013			2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
F plan	NA	NA	NA	NA	NA	NA	NA	NA	0.648	0.421	0.4	0.4	0.4	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
reduction F plan	NA	NA	NA	NA	NA	NA	NA	NA	NA	-0.35	-0.38	-0.38	-0.38	-0.38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
F estimated				0.911	0.883	0.824	0.707	0.627	0.648	0.623	0.597	0.521	0.444	0.398		Effort estima	10282835	10164162	8754426	7895881	7042142	6351346	5847529	5796162	5035590	4586547	4436837.96
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-0.04	-0.04	-0.13	-0.15	-0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fpar																EFFORT													
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013		kW days at s	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
DEN	BT1	NONE	catches	0.00071	0.00068	0.00048	7.00E-05	0.00017	3.00E-05	1.00E-05	9.00E-05	9.00E-05	0.00011	6.00E-05			376722	478214	320631	277249	329335	78260	42335	52098	59305	123592	165599.86
DEN	BT2	NONE	catches	0.00015	2.00E-05	5.00E-05	4.00E-05	5.00E-05	0.00011	0.00015	1.00E-05	NA	NA	NA			27260	49611	38835	50351	103304	36836	29052	3678	NA	NA	NA
DEN	GN1	NONE	catches	0.02249	0.01328	0.01475	0.00865	0.00752	0.00784	0.00887	0.00915	0.00757	0.00528	0.00512			480702	347090	322715	294630	283147	321868	371533	327758	306895	242996	272584.25
DEN	GT1	NONE	catches	0	5.00E-05	4.00E-05	0.00015	1.00E-05	0.00055	0.00092	0.00066	0.00056	0.00053	0.00027			4759	2059	2450	9463	236	25240	36891	44205	40159	37525	39309
DEN	LL1	NONE	catches	0.00078	0.00016	2.00E-04	0.00025	0.00012	9.00E-05	7.00E-05	0.00011	0.00022	0.00014	5.00E-05			23479	5620	2501	3130	1814	2255	1173	2481	33199	30454	5368
DEN	TR1	NONE	catches	0.00949	0.0091	0.02302	0.02872	0.0277	0.01344	0.02149	0.01909	0.01479	0.01432	0.01272			672442	637030	1299770	1276319	1449368	1290895	1285901	1351258	918690	999170	984960.32
DEN	TR2	NONE	catches	0.06482	0.05072	0.06218	0.06107	0.03004	0.01734	0.02556	0.0233	0.02631	0.02142	0.01209			5059017	5514510	3998032	3290591	2359541	2613146	2817250	2759331	2941652	2436599	1890352.97
DEN	TR3	NONE	catches	0.00045	0.00012	7.00E-05	3.00E-05	0	NA	1.00E-05	1.00E-05	0	NA	0.00014			232745	206651	233393	71910	37373	17405	18494	11401	1145	3621	132609
GER	BT1	NONE	catches	NA	0	NA	NA	NA	0	NA	NA	NA	NA	NA			NA	1986	NA	NA	NA	884	NA	NA	NA	NA	NA
GER	BT2	NONE	catches	NA	0	NA	NA	NA	NA	NA	NA	NA	NA	NA			NA	20501	NA	NA	NA	NA	NA	NA	NA	NA	NA
GER	GN1	NONE	catches	NA	NA	1.00E-04	7.00E-05	0.00018	9.00E-05	4.00E-05	3.00E-05	NA	0.00112	0.00079			NA	202	1579	1158	6919	3174	1980	660	NA	17636	18038
GER	TR1	CPART13B	catches	NA	NA	NA	NA	NA	NA	3.00E-05	2.00E-05	0	1.00E-05	7.00E-05			NA	NA	NA	NA	NA	NA	119193	20700	30300	16063	86886
GER	TR1	NONE	catches	0.00186	0.00452	0.00607	0.00736	0.00233	0.00086	0.00095	0.00093	0.00079	0.00279	0.00212			139645	193030	178369	260596	304370	189600	132585	82954	64169	82526	93355
GER	TR2	NONE	catches	0.00021	0.00011	NA	NA	NA	NA	1.00E-05	1.00E-05	1.00E-05	NA	1.00E-05			27339	11891	NA	NA	NA	NA	660	4180	2200	NA	1100
NED	BT1	NONE	catches	8.00E-05	0.00074	0.00348	0.00098	0.00022	0.00012	0	0.00012	0	NA	0			49381	113976	137531	70311	108445	22570	27415	109513	442	NA	7355
SWE	TR3	NONE	catches	NA	0	0	NA	NA	NA	NA	0	NA	NA	NA			NA	3330	1564	588	919	NA	NA	1986	NA	NA	NA
NED	BT2	NONE	catches	0.00056	0.00047	0.00045	0.00073	0.00021	9.00E-05	NA	4.00E-05	0	NA	NA			744932	651750	522477	542233	519000	74615	31846	138751	884	NA	NA
NED	TR1	NONE	catches	NA	NA	NA	NA	9.00E-05	6.00E-05	NA	0.00018	NA	0	0.00176			NA	NA	NA	NA	16547	11576	1369	120821	NA	NA	120512
NED	TR2	NONE	catches	0	NA	NA	NA	NA	0	NA	NA	NA	NA	NA			5260	NA	NA	NA	NA	2942	732	2942	NA	NA	NA
SCO	TR1	CPART13C	catches	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.00E-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	368.75
SWE	GN1	NONE	catches	0.00029	0.00031	0.00038	3.00E-04	6.00E-05	5.00E-05	8.00E-05	0.00012	1.00E-04	0.00011	0.00017			102519	127286	89748	76409	58618	96877	101209	67326	70682	76606	70408.62
SWE	GT1	NONE	catches	0.00012	2.00E-04	0.00012	3.00E-05	8.00E-05	9.00E-05	0.00026	0.00016	3.00E-04	0.00041	0.00026			13801	16206	27824	56771	62309	63022	36250	21260	23899	25752	20386.96
SWE	LL1	NONE	catches	0.00027	0.00025	0.00045	0.00038	0.00111	0.00076	NA	NA	4.00E-05	9.00E-05	0			32305	43165	38665	108455	153999	42453	0	NA	396	660	220.59
SWE	TR1	NONE	catches	0.00189	0.00128	0.00273	0.00212	0.00137	0.00066	8.00E-05	0.00025	0.00037	0.00012	0.00121			171636	95348	109502	55251	88670	92874	10554	11528	27124	25524	87624.27
SWE	TR2	NONE	catches	0.01373	0.03585	0.01851	0.0155	0.00745	0.00573	0.00688	0.0039	0.00389	0.00444	0.00459			2118891	1644706	1428840	1450466	1158228	1364854	781107	661331	514449	467823	439799.37
Sum	NA	NA	NA	0.1179	0.11786	0.13308	0.12645	0.07871	0.04791	0.06541	0.05818	0.05504	0.05089	0.04148	NA	NA	10282835	10164162	8754426	7895881	7042142	6351346	5847529	5796162	5035590	4586547	4436837.96
(Sum of Fpars)/estimated F	NA	NA	NA	0.1294	0.1335	0.1615	0.1789	0.1255	0.0739	0.105	0.0975	0.1056	0.1146	0.1042	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 5.3.10.2 Cod in area **3b1**. The left part of the table lists estimated F trajectories from the management plan and the ICES 2014 cod assessment, as well as partial Fs for **landings** of fisheries using regulated gears. The right part of the table lists the respective trends in fishing effort (kW days at sea). Cod plan article 13 assignments apply since 2009 or 2010, as interpreted from the background documents of national declarations *). A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

From 2008 (fixed baseline) F reductions of 10 percent until F<=0.4 (Fmsy=0.19)																														
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013			2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
F plan	NA	NA	NA	NA	NA	NA	NA	NA	0.648	0.421	0.4	0.4	0.4	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
reduction F plan	NA	NA	NA	NA	NA	NA	NA	NA	NA	-0.35	-0.38	-0.38	-0.38	-0.38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
F estimated				0.911	0.883	0.824	0.707	0.627	0.648	0.623	0.597	0.521	0.444	0.398		Effort estima	10282835	10164162	8754426	7895881	7042142	6351346	5847529	5796162	5035590	4586547	4436837.96			
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-0.04	-0.04	-0.13	-0.15	-0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fpar																EFFORT														
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013		kW days at s	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
DEN	BT1	NONE	landings	0.00071	0.00068	0.00048	7.00E-05	0.00017	3.00E-05	1.00E-05	9.00E-05	9.00E-05	0.00011	6.00E-05			376722	478214	320631	277249	329335	78260	42335	52098	59305	123592	165599.86			
DEN	BT2	NONE	landings	0.00015	2.00E-05	5.00E-05	4.00E-05	5.00E-05	0.00011	0.00015	1.00E-05	NA	NA	NA			27260	49611	38835	50351	103304	36836	29052	3678	NA	NA	NA			
DEN	GN1	NONE	landings	0.02235	0.01328	0.01475	0.00865	0.00752	0.00784	0.00855	0.00897	0.00742	0.00519	0.00505			480702	347090	322715	294630	283147	321868	371533	327758	306895	242996	272584.25			
DEN	GT1	NONE	landings	0	5.00E-05	4.00E-05	0.00015	1.00E-05	0.00055	0.00088	0.00065	0.00054	0.00052	0.00026			4759	2059	2450	9463	236	25240	36891	44205	40159	37525	39309			
DEN	LL1	NONE	landings	0.00078	0.00016	2.00E-04	0.00025	0.00012	9.00E-05	7.00E-05	0.00011	0.00022	0.00014	5.00E-05			23479	5620	2501	3130	1814	2255	1173	2481	33199	30454	5368			
DEN	TR1	NONE	landings	0.00547	0.00493	0.0081	0.00739	0.00758	0.00925	0.0124	0.01297	0.01052	0.01119	0.01004			672442	637030	1299770	1276319	1449368	1290895	1285901	1351258	918690	999170	984960.32			
DEN	TR2	NONE	landings	0.03825	0.03692	0.0276	0.02166	0.0098	0.01055	0.0123	0.01178	0.01093	0.01021	0.00756			5059017	5514510	3998032	3290591	2359541	2613146	2817250	2759331	2941652	2436599	1890352.97			
DEN	TR3	NONE	landings	0.00031	9.00E-05	4.00E-05	3.00E-05	0	NA	1.00E-05	1.00E-05	0	NA	0.00014			232745	206651	233393	71910	37373	17405	18494	11401	1145	3621	132609			
GER	BT1	NONE	landings	NA	0	NA	NA	NA	0	NA	NA	NA	NA	NA			NA	1986	NA	NA	NA	884	NA	NA	NA	NA	NA			
GER	BT2	NONE	landings	NA	0	NA	NA	NA	NA	NA	NA	NA	NA	NA			NA	20501	NA	NA	NA	NA	NA	NA	NA	NA	NA			
GER	GN1	NONE	landings	NA	NA	1.00E-04	7.00E-05	0.00018	9.00E-05	3.00E-05	3.00E-05	NA	0.00111	0.00078			NA	202	1579	1158	6919	3174	1980	660	NA	17636	18038			
GER	TR1	CPART13B	landings	NA	NA	NA	NA	NA	NA	3.00E-05	2.00E-05	0	1.00E-05	7.00E-05			NA	NA	NA	NA	NA	NA	119193	20700	30300	16063	86886			
GER	TR1	NONE	landings	0.00113	0.00216	0.00172	0.00148	0.00064	0.00059	0.00064	0.00063	0.00066	0.00247	0.00162			139645	193030	178369	260596	304370	189600	132585	82954	64169	82526	93355			
GER	TR2	NONE	landings	0.00013	5.00E-05	NA	NA	NA	NA	0	1.00E-05	0	NA	0			27339	11891	NA	NA	NA	NA	660	4180	2200	NA	1100			
NED	BT1	NONE	landings	8.00E-05	0.00074	0.00348	0.00098	0.00022	0.00012	0	0.00012	0	NA	0			49381	113976	137531	70311	108445	22570	27415	109513	442	NA	7355			
NED	BT2	NONE	landings	0.00056	0.00047	0.00045	0.00073	0.00021	9.00E-05	NA	4.00E-05	0	NA	NA			744932	651750	522477	542233	519000	74615	31846	138751	884	NA	NA			
NED	TR1	NONE	landings	NA	NA	NA	NA	3.00E-05	4.00E-05	NA	0.00013	NA	0	0.00138			NA	NA	NA	NA	16547	11576	1369	120821	NA	NA	120512			
NED	TR2	NONE	landings	0	NA	NA	NA	NA	0	NA	NA	NA	NA	NA			5260	NA	NA	NA	NA	2942	732	2942	NA	NA	NA			
SCO	TR1	CPART13C	landings	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.00E-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	368.75			
SWE	GN1	NONE	landings	0.00028	0.00031	0.00038	3.00E-04	6.00E-05	5.00E-05	7.00E-05	0.00012	1.00E-04	0.00011	0.00016			102519	127286	89748	76409	58618	96877	101209	67326	70682	76606	70408.62			
SWE	GT1	NONE	landings	0.00012	2.00E-04	0.00012	3.00E-05	8.00E-05	9.00E-05	0.00024	0.00016	0.00029	0.00041	0.00026			13801	16206	27824	56771	62309	63022	36250	21260	23899	25752	20386.96			
SWE	LL1	NONE	landings	0.00027	0.00025	0.00045	0.00038	0.00111	0.00076	NA	NA	4.00E-05	9.00E-05	0			32305	43165	38665	108455	153999	42453	0	NA	396	660	220.59			
SWE	TR1	NONE	landings	0.0016	0.00062	0.00076	0.00037	0.00031	4.00E-04	6.00E-05	0.00014	0.00023	9.00E-05	0.00048			171636	95348	109502	55251	88670	92874	10554	11528	27124	25524	87624.27			
SWE	TR2	NONE	landings	0.01086	0.00893	0.00678	0.00478	0.00258	0.00252	0.00346	0.00254	0.00293	0.00233	0.00215			2118891	1644706	1428840	1450466	1158228	1364854	781107	661331	514449	467823	439799.37			
SWE	TR3	NONE	landings	NA	0	0	NA	NA	NA	NA	0	NA	NA	NA			NA	3330	1564	588	919	NA	NA	1986	NA	NA	NA			
Sum	NA	NA	NA	0.08305	0.06986	0.0655	0.04736	0.03067	0.03317	0.0389	0.03853	0.03397	0.03398	0.03011	NA	NA	10282835	10164162	8754426	7895881	7042142	6351346	5847529	5796162	5035590	4586547	4436837.96			
(Sum of Fpars)/estimated F	NA	NA	NA	0.0912	0.0791	0.0795	0.067	0.0489	0.0512	0.0624	0.0645	0.0652	0.0765	0.0757	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			

Table 5.3.10.3 **Cod** in area **3b1**. The left part of the table lists estimated F trajectories from the management plan and the ICES 2014 cod assessment, as well as partial Fs for **discards** of fisheries using regulated gears. The right part of the table lists the respective trends in fishing effort (kW days at sea). Cod plan article 13 assignments apply since 2009 or 2010, as interpreted from the background documents of national declarations *). A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

From 2008 (fixed baseline) F reductions of 10 percent until F<=0.4 (Fmsy=0.19)																													
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013			2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
F plan	NA	NA	NA	NA	NA	NA	NA	NA	0.648	0.421	0.4	0.4	0.4	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
reduction F plan	NA	NA	NA	NA	NA	NA	NA	NA	NA	-0.35	-0.38	-0.38	-0.38	-0.38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
F estimated				0.911	0.883	0.824	0.707	0.627	0.648	0.623	0.597	0.521	0.444	0.398		Effort estima	10282835	10164162	8754426	7895881	7042142	6351346	5847529	5796162	5035590	4586547	4436837.96	
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-0.04	-0.04	-0.13	-0.15	-0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fpar																EFFORT													
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013		kW days at s	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
DEN	BT1	NONE	discards	0	0	0	0	0	0	0	0	0	0	0			376722	478214	320631	277249	329335	78260	42335	52098	59305	123592	165599.86	
DEN	BT2	NONE	discards	0	0	0	0	0	0	0	0	NA	NA	NA			27260	49611	38835	50351	103304	36836	29052	3678	NA	NA	NA	
DEN	GN1	NONE	discards	0.00014	0	0	0	0	0	0.00032	0.00019	0.00015	1.00E-04	7.00E-05			480702	347090	322715	294630	283147	321868	371533	327758	306895	242996	272584.25	
DEN	GT1	NONE	discards	0	0	0	0	0	0	4.00E-05	2.00E-05	2.00E-05	1.00E-05	0			4759	2059	2450	9463	236	25240	36891	44205	40159	37525	39309	
DEN	LL1	NONE	discards	0	0	0	0	0	0	0	0	0	0	0			23479	5620	2501	3130	1814	2255	1173	2481	33199	30454	5368	
DEN	TR1	NONE	discards	0.00403	0.00418	0.01492	0.02133	0.02012	0.00419	0.00909	0.00612	0.00427	0.00313	0.00268			672442	637030	1299770	1276319	1449368	1290895	1285901	1351258	918690	999170	984960.32	
DEN	TR2	NONE	discards	0.02657	0.01381	0.03458	0.03941	0.02025	0.00679	0.01326	0.01152	0.01539	0.01121	0.00453			5059017	5514510	3998032	3290591	2359541	2613146	2817250	2759331	2941652	2436599	1890352.97	
DEN	TR3	NONE	discards	0.00014	2.00E-05	3.00E-05	0	0	NA	0	0	0	NA	0			232745	206651	233393	71910	37373	17405	18494	11401	1145	3621	132609	
GER	BT1	NONE	discards	NA	0	NA	NA	NA	0	NA	NA	NA	NA	NA			NA	1986	NA	NA	NA	884	NA	NA	NA	NA	NA	
GER	BT2	NONE	discards	NA	0	NA	NA	NA	NA	NA	NA	NA	NA	NA			NA	20501	NA	NA	NA	NA	NA	NA	NA	NA	NA	
GER	GN1	NONE	discards	NA	NA	0	0	0	0	0	0	NA	2.00E-05	1.00E-05			NA	202	1579	1158	6919	3174	1980	660	NA	17636	18038	
GER	TR1	CPART13B	discards	NA	NA	NA	NA	NA	NA	0	0	0	0	0			NA	NA	NA	NA	NA	NA	119193	20700	30300	16063	86886	
GER	TR1	NONE	discards	0.00073	0.00235	0.00435	0.00588	0.00168	0.00027	0.00032	0.00029	0.00013	0.00032	5.00E-04			139645	193030	178369	260596	304370	189600	132585	82954	64169	82526	93355	
GER	TR2	NONE	discards	8.00E-05	6.00E-05	NA	NA	NA	NA	0	1.00E-05	0	NA	0			27339	11891	NA	NA	NA	NA	660	4180	2200	NA	1100	
NED	BT1	NONE	discards	0	0	0	0	0	0	0	0	0	NA	0			49381	113976	137531	70311	108445	22570	27415	109513	442	NA	7355	
NED	BT2	NONE	discards	0	0	0	0	0	0	NA	0	0	NA	NA			744932	651750	522477	542233	519000	74615	31846	138751	884	NA	NA	
NED	TR1	NONE	discards	NA	NA	NA	NA	7.00E-05	2.00E-05	NA	5.00E-05	NA	0	0.00038			NA	NA	NA	NA	16547	11576	1369	120821	NA	NA	120512	
NED	TR2	NONE	discards	0	NA	NA	NA	NA	0	NA	NA	NA	NA	NA			5260	NA	NA	NA	NA	2942	732	2942	NA	NA	NA	
SCO	TR1	CPART13C	discards	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	368.75	
SWE	GN1	NONE	discards	0	0	0	0	0	0	0	0	0	0	0			102519	127286	89748	76409	58618	96877	101209	67326	70682	76606	70408.62	
SWE	GT1	NONE	discards	0	0	0	0	0	0	2.00E-05	0	1.00E-05	1.00E-05	1.00E-05			13801	16206	27824	56771	62309	63022	36250	21260	23899	25752	20386.96	
SWE	LL1	NONE	discards	0	0	0	0	0	0	NA	NA	0	0	0			32305	43165	38665	108455	153999	42453	0	NA	396	660	220.59	
SWE	TR1	NONE	discards	0.00029	0.00066	0.00197	0.00175	0.00106	0.00026	3.00E-05	0.00011	0.00014	2.00E-05	0.00073			171636	95348	109502	55251	88670	92874	10554	11528	27124	25524	87624.27	
SWE	TR2	NONE	discards	0.00287	0.02692	0.01172	0.01072	0.00487	0.00321	0.00342	0.00136	0.00096	0.00212	0.00244			2118891	1644706	1428840	1450466	1158228	1364854	781107	661331	514449	467823	439799.37	
SWE	TR3	NONE	discards	NA	0	0	NA	NA	NA	NA	0	NA	NA	NA			NA	3330	1564	588	919	NA	NA	1986	NA	NA	NA	
Sum	NA	NA	NA	0.03485	0.048	0.06757	0.07909	0.04805	0.01474	0.0265	0.01967	0.02107	0.01694	0.01135	NA	NA	10282835	10164162	8754426	7895881	7042142	6351346	5847529	5796162	5035590	4586547	4436837.96	
(Sum of Fpars)/estimated F	NA	NA	NA	0.0383	0.0544	0.082	0.1119	0.0766	0.0227	0.0425	0.0329	0.0404	0.0382	0.0285	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 5.3.10.4 **Cod** in area **3b2**. The left part of the table lists estimated F trajectories from the management plan and the ICES 2014 cod assessment, as well as partial Fs for **catches** of fisheries using regulated gears. The right part of the table lists the respective trends in fishing effort (kW days at sea). Cod plan article 13 assignments apply since 2009 or 2010, as interpreted from the background documents of national declarations *). A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

From 2008 (fixed baseline) F reductions of 10 percent until F<=0.4 (Fmsy=0.19)																												
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013			2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
F plan	NA	NA	NA	NA	NA	NA	NA	NA	0.648	0.421	0.4	0.4	0.4	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
reduction F plan	NA	NA	NA	NA	NA	NA	NA	NA	NA	-0.35	-0.38	-0.38	-0.38	-0.38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
F estimated				0.911	0.883	0.824	0.707	0.627	0.648	0.623	0.597	0.521	0.444	0.398		Effort estima	124944543	116172896	112567435	104205608	94475946	83754374	82574347	77688385	69432434	61680027	63393782.3	
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-0.04	-0.04	-0.13	-0.15	-0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fpar																EFFORT												
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013		kW days at s	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
BEL	BT1	NONE	catches	0.01505	0.02352	0.02156	0.0235	0.00816	0.00654	0.00226	0.00283	0.004	0.00621	0.01157			1036595	1439951	1509759	1333012	1320169	984056	575501	535636	671368	963867	1198066	
BEL	BT2	NONE	catches	0.01918	0.0111	0.013	0.00942	0.00485	0.00883	0.00777	0.00383	0.00211	0.00145	0.00114			4241216	4294884	3884007	3418751	2707991	3536979	3327143	2480357	1742532	1269319	1178340	
BEL	GN1	NONE	catches	0.00259	0.00084	0.00056	0.00052	0.00028	4.00E-04	0.00048	0.00041	0.00018	7.00E-05	7.00E-05			111613	152642	148827	127951	128626	158409	161734	97609	95383	45103	36531	
BEL	GT1	NONE	catches	NA	NA	NA	NA	5.00E-05	9.00E-05	2.00E-05	6.00E-05	2.00E-05	2.00E-05	0			NA	NA	NA	NA	15402	18000	5014	19041	18155	25216	12765	
BEL	LL1	NONE	catches	NA	NA	NA	NA	NA	0	NA	0	0	1.00E-05	NA			NA	NA	NA	NA	NA	1768	NA	1660	128	786	NA	
BEL	TR1	NONE	catches	NA	0.00012	NA	NA	0.00033	0.00026	0.00029	0.00019	0.00026	2.00E-04	0.00025			NA	1989	NA	NA	161520	201379	220428	212429	128701	183682	145247	
BEL	TR2	NONE	catches	NA	0.00133	0.00127	0.00145	0.00178	0.00285	0.00139	0.00103	0.0012	0.00061	0.00033			NA	519343	343840	366940	298814	425374	506865	476033	435961	484371	467533	
BEL	TR3	NONE	catches	NA	NA	NA	NA	NA	NA	NA	0	NA	0	NA			NA	NA	NA	NA	NA	663	NA	1899	NA	1175	6734	
DEN	BT1	NONE	catches	0.00233	0.00291	0.00343	0.00236	0.00065	0.00073	0.00041	0.00062	3.00E-04	0.00045	0.00045			1122195	887830	996227	511642	527282	370939	366679	513056	373757	317294	288845.14	
DEN	BT2	NONE	catches	0.00018	0.00029	0.00029	6.00E-05	1.00E-05	3.00E-05	9.00E-05	NA	NA	NA	0			89457	38279	62036	42447	1390	2894	49163	NA	440	242	5884	
DEN	GN1	NONE	catches	0.0543	0.07051	0.06502	0.05039	0.02012	0.02004	0.0197	0.02328	0.02026	0.01433	0.01078			2077492	2164307	2031057	1795453	949658	1003603	1050057	1195617	1136118	1080149	1059194.75	
DEN	GT1	NONE	catches	0.00356	0.00491	0.00427	0.0024	0.00059	0.00104	0.00117	0.00121	0.00084	0.00129	0.00138			138641	244626	237800	175339	98614	100902	158205	130662	182841	321220	483287	
DEN	LL1	NONE	catches	0.00373	0.00219	0.00159	0.00153	0.00018	0.00029	0.00028	0.00149	0.00065	0	0			105319	79773	41626	42159	15924	25347	28769	45576	29388	21089	23908	
DEN	TR1	NONE	catches	0.06246	0.05258	0.10755	0.05181	0.03723	0.03309	0.04039	0.04564	0.03584	0.03683	0.0304			7137074	6422756	6405176	6020308	3801069	4034203	3793148	3592389	3664621	3593770	3346857.69	
DEN	TR2	NONE	catches	0.00832	0.00555	0.00654	0.00443	0.00287	0.00115	0.00058	0.00059	0.00045	0.00033	0.00019			2597949	2580788	1916695	1405216	1080616	706247	569359	431399	370536	312765	267597.2	
DEN	TR3	NONE	catches	0.00058	3.00E-04	0.00036	0.00013	6.00E-05	0	1.00E-05	NA	NA	NA	1.00E-05			3084554	3026636	2373302	1761200	799803	916558	577813	1063007	336257	477168	824551	
ENG	BT1	CPART13B	catches	NA	NA	NA	NA	NA	NA	NA	1.00E-05	4.00E-05	4.00E-05	1.00E-05			NA	NA	NA	NA	NA	NA	NA	202685	169873	384590	575557.5	
ENG	BT1	NONE	catches	0.00087	0.00058	0.00037	0.00108	0.00013	3.00E-05	3.00E-05	NA	NA	0	NA			1060809	671130	618160	1321240	305837	228530	265710	NA	NA	40284	NA	
ENG	BT2	CPART13B	catches	NA	NA	NA	NA	NA	NA	2.00E-05	0.00061	0.00052	0.00032	0.00025			NA	NA	NA	NA	NA	NA	47771	2863860	2644958	2412375	2853225.5	
ENG	BT2	NONE	catches	0.0025	0.00313	0.0032	0.00173	0.0011	0.00086	0.00096	0.00038	4.00E-05	4.00E-05	1.00E-05			2739407	3559560	4046341	2974409	3251512	1975399	2444807	401247	96356	79036	28485.4	
ENG	GN1	CPART13B	catches	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.00E-05			NA	NA	NA	NA	NA	NA	NA	111390	152556	102172	177099.99	
ENG	GN1	NONE	catches	0.00891	0.00864	0.00512	0.00478	0.00163	0.0032	0.00409	0.00309	0.00242	0.00213	0.00059			337639	359134	308275	308517	180503	70981	175602	74835	73826	61957	28671.5	
ENG	GT1	NONE	catches	0	1.00E-05	6.00E-05	0.00014	5.00E-05	0.00014	1.00E-04	0.00017	9.00E-05	3.00E-05	2.00E-05			1092	1564	5342	11100	3291	12918	12654	17355	12003	5823	12168.66	
ENG	LL1	NONE	catches	0.00073	0.00038	0.00033	0.00035	0.00011	6.00E-05	9.00E-05	0.00035	7.00E-05	4.00E-05	1.00E-05			102465	83137	142602	54974	15752	6164	4318	12052	6253	15449	8401.48	
ENG	TR1	CPART13B	catches	NA	NA	NA	NA	NA	NA	0.00085	0.00076	9.00E-04	0.00054	3.00E-04			NA	NA	NA	NA	NA	NA	898933	964206	874021	939503	1089822.3	
ENG	TR1	CPART13C	catches	NA	NA	NA	NA	NA	NA	0.01475	0.01747	0.0145	0.00909	0.01808			NA	NA	NA	NA	NA	NA	1242445	1144923	1254762	931671	1127181.16	
ENG	TR1	NONE	catches	0.03411	0.02766	0.01797	0.02204	0.01343	0.0167	NA	NA	NA	NA	0			2343719	1497618	1254880	1823891	1501499	1846925	NA	NA	NA	NA	NA	
ENG	TR2	CPART13B	catches	NA	NA	NA	NA	NA	NA	0.00065	0.00132	0.00129	5.00E-04	0.00024			NA	NA	NA	NA	NA	NA	260311	873808	721452	865045	542145.84	
ENG	TR2	CPART13C	catches	NA	NA	NA	NA	NA	NA	0.00391	0.00206	0.00174	0.00085	0.00028			NA	NA	NA	NA	NA	NA	1376367	482080	524579	267661	236427.7	
ENG	TR2	NONE	catches	0.0073	0.00477	0.00475	0.00795	0.00311	0.00315	NA	NA	NA	NA	NA			1853471	1705154	1937849	1707774	1621394	1794132	NA	NA	NA	NA	NA	
ENG	TR3	NONE	catches	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	0			1988	7840	3315	6360	1220	492	82	718	621	246	216	

Table 5.3.10.4 continued

FRA	BT2	NONE	catches	0.00016	4.00E-05	3.00E-05	1.00E-05	0.00013	6.00E-05	6.00E-05	0	0	0	0			96232	94514	75129	66203	103453	88053	88053	40118	67545	57044	56091
FRA	GN1	NONE	catches	8.00E-04	0.00021	7.00E-05	0.00026	0.00064	0.00045	4.00E-04	1.00E-05	0	0	0			58454	64809	46058	31231	61545	47746	46493	2149	7803	3322	1536
FRA	GT1	NONE	catches	0.0027	0.00065	0.00031	0.00113	0.00115	0.00128	0.00123	5.00E-04	6.00E-04	0.00062	0.00047			830136	793053	813190	1785801	1703889	1010253	1010253	634781	690428	636164	599605.33
FRA	TR1	CPART13B	catches	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.00E-05	0.00082			NA	NA	NA	NA	NA	NA	NA	NA	NA	29600	2129413.33
FRA	TR1	NONE	catches	0.00192	0.00168	0.0114	0.01225	0.00229	0.03389	0.02118	0.00039	0.00148	NA	0.00011			3347063	2299125	1901534	2675348	2418190	2714146	2622538	1913401	1727371	324	20972.33
FRA	TR2	NONE	catches	0.01908	0.00675	0.00761	0.01157	0.02375	0.02037	0.00957	0.00541	0.00725	0.00141	0.00108			1961970	1911744	1713917	1558413	1727617	1930459	1924156	1089380	960559	725367	478490.58
FRA	TR3	NONE	catches	NA	NA	NA	NA	NA	NA	NA	7.00E-05	1.00E-05	NA	NA			NA	1753	7121	1319	NA	2184	2184	13827	2210	1250	84.5
GER	BT1	NONE	catches	1.00E-04	5.00E-05	0	0.00016	4.00E-05	9.00E-05	NA	NA	NA	NA	1.00E-05			47736	29712	2128	53986	30297	16790	NA	884	1535	2793	65906
GER	BT2	NONE	catches	0.00192	0.00878	0.00152	0.00158	0.00035	0.00041	0.00075	0.00106	0.00041	0.00037	0.00019			1669870	2060092	2212397	1927398	1590823	1464163	1666322	1801775	1242171	1071896	1290574
GER	GN1	NONE	catches	0.00358	0.00672	0.00649	0.00339	0.00202	0.00201	0.00291	0.00411	0.00298	0.00151	0.00075			191424	163463	271624	235427	145714	278008	233164	275364	225797	269836	241938
GER	GT1	NONE	catches	NA	NA	NA	NA	NA	NA	2.00E-05	0	0	NA	NA			NA	NA	NA	1547	NA	NA	15444	1188	924	NA	NA
GER	TR1	CPART13B	catches	NA	NA	NA	NA	NA	NA	0.00184	0.00185	0.0022	0.00141	0.00129			NA	NA	NA	NA	NA	NA	808679	898007	815730	747693	722448
GER	TR1	NONE	catches	0.05035	0.04701	0.06207	0.05652	0.03072	0.03357	0.02811	0.02812	0.0205	0.01907	0.014			1756193	1526666	1988209	2176131	1736694	1585192	759368	829604	741965	495051	598769
GER	TR2	CPART13B	catches	NA	NA	NA	NA	NA	NA	2.00E-05	0.00029	0.00012	1.00E-05	1.00E-05			NA	NA	NA	NA	NA	NA	2420	39820	31240	14740	20680
GER	TR2	NONE	catches	0.00729	0.00458	0.00461	0.00254	0.00193	0.00178	0.0012	0.00161	0.00094	0.00045	0.00023			1013535	893439	704404	771597	680681	457259	470754	420345	408157	320809	315656
GER	TR3	NONE	catches	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			1028	NA	NA	772	884	4410	426	NA	NA	NA	184
IRL	TR1	NONE	catches	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			1847	NA	NA	NA	NA	NA	NA	NA	NA	NA	294
IRL	TR2	NONE	catches	NA	0	NA	NA	NA	NA	NA	NA	NA	NA	NA			54	884	NA	NA	NA	NA	NA	NA	NA	NA	NA
NED	BT1	NONE	catches	0.00078	0.00158	0.00324	0.00315	0.00092	0.00069	0.00026	0.00022	2.00E-04	0.00017	9.00E-05			575801	700747	719292	1528652	720068	370417	412420	378796	308516	1090258	1202666
NED	BT2	NONE	catches	0.06987	0.06608	0.04925	0.03903	0.02297	0.03385	0.0244	0.01861	0.01265	0.00931	0.00428			47724234	44669317	44478122	38823660	37931313	27646215	28696410	28510104	25776297	22428296	23823379
NED	GN1	NONE	catches	0.00128	0.00108	0.00079	0.00106	0.00043	0.00057	0.00073	0.00051	0.00032	0.00024	0.00013			460895	416025	387945	511580	521697	507733	419797	357091	316070	295035	233663
NED	GT1	NONE	catches	NA	NA	NA	NA	NA	3.00E-05	7.00E-04	4.00E-04	0.00012	8.00E-05	9.00E-05			NA	NA	NA	NA	NA	740	26917	37399	21431	29054	7442
NED	TR1	NONE	catches	0.01317	0.00975	0.00542	0.00463	0.00448	0.01204	0.01198	0.01061	0.00721	0.00875	0.00586			684700	589170	547564	532260	631492	1400068	1316055	1290080	1173220	1329299	1196661
NED	TR2	NONE	catches	0.00854	0.00388	0.00442	0.00452	0.00804	0.00829	0.00427	0.00375	0.00317	0.00184	0.00111			1932081	1496720	1298918	1224916	1384658	1853682	1334665	1231860	1313554	1277297	1181714
NED	TR3	NONE	catches	0.00012	0	3.00E-05	NA	0	0	NA	6.00E-05	1.00E-05	NA	NA			59360	42894	43261	20649	20589	4038	274	31973	23268	25897	50615
NIR	BT1	NONE	catches	0.00044	0.00027	3.00E-05	NA	NA	NA	NA	NA	NA	NA	NA			965239	543305	36825	NA	NA	NA	NA	NA	NA	NA	NA
NIR	BT2	NONE	catches	5.00E-05	7.00E-05	2.00E-05	NA	NA	NA	NA	NA	NA	NA	NA			20350	47517	16785	NA	NA	NA	NA	NA	NA	NA	NA
NIR	TR1	CPART13A	catches	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	NA			NA	NA	NA	NA	NA	NA	NA	NA	NA	2672	4310
NIR	TR1	CPART13B	catches	NA	NA	NA	NA	NA	NA	7.00E-05	2.00E-05	0	0	1.00E-05			NA	NA	NA	NA	NA	NA	41944	23326	33246	16573	7062
NIR	TR1	CPART13C	catches	NA	NA	NA	NA	NA	NA	1.00E-05	1.00E-05	NA	NA	NA			NA	NA	NA	NA	NA	NA	14196	6034	NA	2781	16050
NIR	TR1	NONE	catches	NA	4.00E-05	2.00E-04	5.00E-05	0.00013	0.00022	NA	NA	NA	NA	NA			NA	16948	70710	51951	61460	49104	NA	NA	NA	NA	NA
NIR	TR2	CPART13A	catches	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	2.00E-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	90338	245268.4
NIR	TR2	CPART13B	catches	NA	NA	NA	NA	NA	NA	0.00012	0	2.00E-05	0	NA			NA	NA	NA	NA	NA	NA	65544	161981	207697	109647	NA
NIR	TR2	CPART13C	catches	NA	NA	NA	NA	NA	NA	0.00133	0.00043	0.00012	NA	NA			NA	NA	NA	NA	NA	NA	320087	236516	70443	25672	50085
NIR	TR2	NONE	catches	4.00E-05	4.00E-05	0.00088	0.00172	0.00264	0.00095	NA	NA	NA	NA	NA			6784	12440	221904	532885	758972	409182	NA	NA	NA	NA	NA
SCO	BT1	NONE	catches	0.00118	0.00127	0.00083	0.00107	0.00043	1.00E-05	0	NA	NA	NA	NA			866665	694716	730810	598616	349914	68568	53082	NA	NA	NA	NA
SCO	BT2	NONE	catches	0.005	0.00479	0.00291	0.00207	0.00079	0.00071	0.00039	0.00011	NA	1.00E-05	2.00E-05			3765518	4608817	4185262	3108933	2790115	1351720	554376	144306	NA	68262	217190
SCO	GN1	NONE	catches	0.00036	0.00032	0.00014	9.00E-05	3.00E-05	4.00E-05	0	1.00E-05	2.00E-05	1.00E-05	0			196852	197407	165644	293823	320785	417076	376332	440579	607650	569749	422531.6
SCO	LL1	NONE	catches	0.00052	2.00E-05	NA	1.00E-05	NA	5.00E-05	2.00E-05	2.00E-05	0	NA	NA			57163	4350	NA	7542	1487	276898	621114	301689	183352	68192	15395.2
SCO	TR1	CPART13B	catches	NA	NA	NA	NA	NA	NA	0.0074	0.00744	0.0013	NA	NA			NA	NA	NA	NA	NA	NA	692932	955808	810706	36937	NA
SCO	TR1	CPART13C	catches	NA	NA	NA	NA	NA	NA	0.18085	0.16097	0.1244	0.12696	0.13301			NA	NA	NA	NA	NA	NA	11552644	9486824	9185531	9265940	8340695.27
SCO	TR1	NONE	catches	0.20279	0.15534	0.1527	0.14551	0.14191	0.23356	NA	NA	NA	NA	NA			16079389	12684328	12158295	11660764	11022982	12176292	NA	NA	NA	NA	NA
SCO	TR2	CPART13B	catches	NA	NA	NA	NA	NA	NA	0.00446	0.0156	0.00669	NA	NA			NA	NA	NA	NA	NA	NA	4219929	7467356	5277096	287446	NA
SCO	TR2	CPART13C	catches	NA	NA	NA	NA	NA	NA	0.01167	0.0011	0.00621	0.01121	0.00362			NA	NA	NA	NA	NA	NA	3796988	490013	1285425	4861297	3539873.36
SCO	TR2	NONE	catches	0.04457	0.02714	0.03041	0.02756	0.03785	0.02086	NA	NA	NA	NA	NA			9998937	9485974	9108232	8561812	8678139	8855742	NA	NA	NA	NA	NA
SCO	TR3	NONE	catches	NA	3.00E-05	NA	NA	NA	NA	1.00E-05	NA	NA	1.00E-05	1.00E-05			6377	5460	2356	116	11896	NA	33117	27524	NA	20706	1566.6
SWE	LL1	NONE	catches	NA	NA	0.00056	0.00223	0.00098	0.00151	0.00115	0.0015	0.00106	0.00137	NA			NA	1056	4239	15026	11020	10928	11352	6600	8184	5016	NA
SWE	TR1	NONE	catches	0.00721	0.00592	0.00842	0.00481	0.00717	0.00932	0.00406	0.0029	0.00244	0.00333	0.00307			381696	375455	387252	237269	269171	333387	245040	196354	189867	190816	270229
SWE	TR2	NONE	catches	6.00E-05	7.00E-05	1.00E-05	1.00E-05	8.00E-05	3.00E-05	NA	0	NA	NA	NA			4265	2055	1192	1298	2515	1059	NA	0	NA	3930	NA
Sum	NA	NA	NA	0.67058	0.57548	0.61161	0.513	0.38859	0.51612	0.42146	0.37509	0.29015	0.26356	0.24665	NA	NA	124944543	116172896	112567435	104205608	94475946	83754374	82574347	77688385	69432434	61680027	63393782.3
(Sum of Fpars)/estimated F	NA	NA	NA	0.7361	0.6517	0.7422	0.7256	0.6198	0.7965	0.6765	0.6283	0.5569	0.5936	0.6197	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 5.3.10.5 Cod in area **3b2**. The left part of the table lists estimated F trajectories from the management plan and the ICES 2014 cod assessment, as well as partial Fs for **landings** of fisheries using regulated gears. The right part of the table lists the respective trends in fishing effort (kW days at sea). Cod plan article 13 assignments apply since 2009 or 2010, as interpreted from the background documents of national declarations *). A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

From 2008 (fixed baseline) F reductions of 10 percent until F<=0.4 (Fmsy=0.19)																													
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013			2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
F plan	NA	NA	NA	NA	NA	NA	NA	NA	0.648	0.421	0.4	0.4	0.4	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
reduction F p	NA	NA	NA	NA	NA	NA	NA	NA	NA	-0.35	-0.38	-0.38	-0.38	-0.38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
F estimated				0.911	0.883	0.824	0.707	0.627	0.648	0.623	0.597	0.521	0.444	0.398		Effort estima	124944543	116172896	112567435	104205608	94475946	83754374	82574347	77688385	69432434	61680027	63393782.3	
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-0.04	-0.04	-0.13	-0.15	-0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fpar																EFFORT												
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013		kW days at s	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
BEL	BT1	NONE	landings	0.01393	0.02352	0.02156	0.01726	0.00816	0.00398	0.00226	0.00283	0.004	0.00621	0.00769			1036595	1439951	1509759	1333012	1320169	984056	575501	535636	671368	963867	1198066	
BEL	BT2	NONE	landings	0.01857	0.00944	0.00917	0.00709	0.0036	0.00565	0.00649	0.00301	0.002	0.00136	0.00107			4241216	4294884	3884007	3418751	2707991	3536979	3327143	2480357	1742532	1269319	1178340	
BEL	GN1	NONE	landings	0.00257	0.00084	0.00053	5.00E-04	0.00028	4.00E-04	0.00048	0.00041	0.00017	7.00E-05	7.00E-05			111613	152642	148827	127951	128626	158409	161734	97609	95383	45103	36531	
BEL	GT1	NONE	landings	NA	NA	NA	NA	5.00E-05	9.00E-05	2.00E-05	6.00E-05	2.00E-05	2.00E-05	0			NA	NA	NA	NA	15402	18000	5014	19041	18155	25216	12765	
BEL	LL1	NONE	landings	NA	NA	NA	NA	NA	0	NA	0	0	1.00E-05	NA			NA	NA	NA	NA	NA	1768	NA	1660	128	786	NA	
BEL	TR1	NONE	landings	NA	9.00E-05	NA	NA	0.00019	0.00011	0.00025	0.00018	0.00026	0.00019	0.00022			NA	1989	NA	NA	161520	201379	220428	212429	128701	183682	145247	
BEL	TR2	NONE	landings	NA	0.00097	0.00077	6.00E-04	0.00044	0.00089	0.00108	0.00068	0.00071	0.00054	0.00026			NA	519343	343840	366940	298814	425374	506865	476033	435961	484371	467533	
BEL	TR3	NONE	landings	NA	NA	NA	NA	NA	NA	NA	0	NA	0	NA			NA	NA	NA	NA	NA	663	NA	1899	NA	1175	6734	
DEN	BT1	NONE	landings	0.00216	0.00291	0.00343	0.00187	0.00065	0.00047	0.00041	0.00062	3.00E-04	0.00045	0.00039			1122195	887830	996227	511642	527282	370939	366679	513056	373757	317294	288845.14	
DEN	BT2	NONE	landings	0.00017	0.00011	0.00021	5.00E-05	1.00E-05	2.00E-05	8.00E-05	NA	NA	NA	0			89457	38279	62036	42447	1390	2894	49163	NA	440	242	5884	
DEN	GN1	NONE	landings	0.05402	0.07041	0.06252	0.04869	0.02012	0.02002	0.0197	0.02312	0.01914	0.01381	0.01008			2077492	2164307	2031057	1795453	949658	1003603	1050057	1195617	1136118	1080149	1059194.75	
DEN	GT1	NONE	landings	0.00353	0.00491	0.00426	0.00231	0.00059	0.00104	0.00116	0.00121	0.00076	0.00123	0.00127			138641	244626	237800	175339	98614	100902	158205	130662	182841	321220	483287	
DEN	LL1	NONE	landings	0.00373	0.00219	0.00159	0.00153	0.00018	0.00029	0.00028	0.00149	0.00064	0	0			105319	79773	41626	42159	15924	25347	28769	45576	29388	21089	23908	
DEN	TR1	NONE	landings	0.05361	0.04428	0.06095	0.03845	0.02155	0.02545	0.03381	0.04164	0.03492	0.03379	0.02756			7137074	6422756	6405176	6020308	3801069	4034203	3793148	3592389	3664621	3593770	3346857.69	
DEN	TR2	NONE	landings	0.00555	0.00476	0.00302	0.00209	0.00071	0.00048	0.00046	0.00045	0.00038	0.00029	0.00015			2597949	2580788	1916695	1405216	1080616	706247	569359	431399	370536	312765	267597.2	
DEN	TR3	NONE	landings	0.00056	0.00029	0.00034	0.00013	6.00E-05	0	1.00E-05	NA	NA	NA	1.00E-05			3084554	3026636	2373302	1761200	799803	916558	577813	1063007	336257	477168	824551	
ENG	BT1	CPART13B	landings	NA	NA	NA	NA	NA	NA	NA	1.00E-05	4.00E-05	4.00E-05	1.00E-05			NA	NA	NA	NA	NA	NA	NA	202685	169873	384590	575557.5	
ENG	BT1	NONE	landings	0.00083	0.00058	0.00037	0.00081	0.00013	2.00E-05	3.00E-05	NA	NA	0	NA			1060809	671130	618160	1321240	305837	228530	265710	NA	NA	40284	NA	
ENG	BT2	CPART13B	landings	NA	NA	NA	NA	NA	NA	2.00E-05	0.00061	0.00052	0.00032	0.00024			NA	NA	NA	NA	NA	NA	47771	2863860	2644958	2412375	2853225.5	
ENG	BT2	NONE	landings	0.00238	0.00186	0.00231	0.00159	0.00101	0.00062	8.00E-04	0.00035	4.00E-05	3.00E-05	1.00E-05			2739407	3559560	4046341	2974409	3251512	1975399	2444807	401247	96356	79036	28485.4	
ENG	GN1	CPART13B	landings	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.00E-05			NA	NA	NA	NA	NA	NA	NA	111390	152556	102172	177099.99	
ENG	GN1	NONE	landings	0.00886	0.00864	0.00486	0.00463	0.00163	0.0032	0.00409	0.00306	0.00229	0.00207	0.00056			337639	359134	308275	308517	180503	70981	175602	74835	73826	61957	28671.5	
ENG	GT1	NONE	landings	0	1.00E-05	6.00E-05	0.00013	5.00E-05	0.00014	1.00E-04	0.00017	9.00E-05	2.00E-05	2.00E-05			1092	1564	5342	11100	3291	12918	12654	17355	12003	5823	12168.66	
ENG	LL1	NONE	landings	0.00073	0.00038	0.00033	0.00035	0.00011	6.00E-05	9.00E-05	0.00035	7.00E-05	4.00E-05	1.00E-05			102465	83137	142602	54974	15752	6164	4318	12052	6253	15449	8401.48	
ENG	TR1	CPART13B	landings	NA	NA	NA	NA	NA	NA	0.00082	0.00068	0.00086	0.00052	0.00024			NA	NA	NA	NA	NA	NA	898933	964206	874021	939503	1089822.3	
ENG	TR1	CPART13C	landings	NA	NA	NA	NA	NA	NA	0.0144	0.0156	0.01373	0.00822	0.01502			NA	NA	NA	NA	NA	NA	1242445	1144923	1254762	931671	1127181.16	
ENG	TR1	NONE	landings	0.03029	0.0255	0.01559	0.01655	0.01144	0.01172	NA	NA	NA	NA	0			2343719	1497618	1254880	1823891	1501499	1846925	NA	NA	NA	NA	NA	
ENG	TR2	CPART13B	landings	NA	NA	NA	NA	NA	NA	0.00022	0.00069	0.00046	0.00043	0.00017			NA	NA	NA	NA	NA	NA	260311	873808	721452	865045	542145.84	
ENG	TR2	CPART13C	landings	NA	NA	NA	NA	NA	NA	0.00178	0.0011	0.00077	0.00054	0.00019			NA	NA	NA	NA	NA	NA	1376367	482080	524579	267661	236427.7	
ENG	TR2	NONE	landings	0.00574	0.00341	0.00364	0.00357	0.00223	0.00215	NA	NA	NA	NA	NA			1853471	1705154	1937849	1707774	1621394	1794132	NA	NA	NA	NA	NA	
ENG	TR3	NONE	landings	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	0			1988	7840	3315	6360	1220	492	82	718	621	246	216	
FRA	BT2	NONE	landings	0.00015	3.00E-05	3.00E-05	1.00E-05	0.00012	5.00E-05	5.00E-05	0	0	0	0			96232	94514	75129	66203	103453	88053	88053	40118	67545	57044	56091	
FRA	GN1	NONE	landings	8.00E-04	0.00021	7.00E-05	0.00025	0.00064	0.00045	4.00E-04	1.00E-05	0	0	0			58454	64809	46058	31231	61545	47746	46493	2149	7803	3322	1536	
FRA	GT1	NONE	landings	0.00268	0.00065	0.00031	0.0011	0.00115	0.00127	0.00121	5.00E-04	0.00055	0.00059	0.00041			830136	793053	813190	1785801	1703889	1010253	1010253	634781	690428	636164	599605.33	
FRA	TR1	CPART13B	landings	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.00E-05	0.00076			NA	NA	NA	NA	NA	NA	NA	NA	NA	29600	2129413.33	
FRA	TR1	NONE	landings	0.00174	0.00151	0.0092	0.00999	0.00132	0.0178	0.01692	0.00036	0.00143	NA	1.00E-04			3347063	2299125	1901534	2675348	2418190	2714146	2622538	1913401	1727371	324	20972.33	
FRA	TR2	NONE	landings	0.01132	0.00491	0.00493	0.00392	0.00531	0.00734	0.00694	0.00344	0.00474	0.00124	0.00086			1961970	1911744	1713917	1558413	1727617	1930459	1924156	1089380	960559	725367	478490.58	
FRA	TR3	NONE	landings	NA	NA	NA	NA	NA	NA	NA	7.00E-05	1.00E-05	NA	NA			NA	1753	7121	1319	NA	2184	2184	13827	2210	1250	84.5	

Table 5.3.10.5 continued

GER	BT1	NONE	landings	9.00E-05	5.00E-05	0	0.00012	4.00E-05	5.00E-05	NA	NA	NA	NA	1.00E-05			47736	29712	2128	53986	30297	16790	NA	884	1535	2793	65906				
GER	BT2	NONE	landings	0.00183	0.00125	0.00126	0.00099	0.00031	0.00037	0.00063	0.00094	0.00039	0.00027	0.00014			1669870	2060092	2212397	1927398	1590823	1464163	1666322	1801775	1242171	1071896	1290574				
GER	GN1	NONE	landings	0.00357	0.00671	0.00628	0.00324	0.00202	0.00201	0.00291	0.00408	0.00288	0.00145	0.00071			191424	163463	271624	235427	145714	278008	233164	275364	225797	269836	241938				
GER	GT1	NONE	landings	NA	NA	NA	NA	NA	NA	2.00E-05	0	0	NA	NA			NA	NA	NA	1547	NA	NA	15444	1188	924	NA	NA				
GER	TR1	CPART13B	landings	NA	NA	NA	NA	NA	NA	0.00133	0.00178	0.00173	0.00139	0.00129			NA	NA	NA	NA	NA	NA	808679	898007	815730	747693	722448				
GER	TR1	NONE	landings	0.04753	0.04321	0.05227	0.04706	0.02349	0.02043	0.02488	0.02644	0.01928	0.01786	0.01289			1756193	1526666	1988209	2176131	1736694	1585192	759368	829604	741965	495051	598769				
GER	TR2	CPART13B	landings	NA	NA	NA	NA	NA	NA	1.00E-05	1.00E-04	3.00E-05	1.00E-05	1.00E-05			NA	NA	NA	NA	NA	NA	2420	39820	31240	14740	20680				
GER	TR2	NONE	landings	0.00519	0.00356	0.00309	0.00143	7.00E-04	7.00E-04	0.00092	0.00102	0.00054	0.00037	0.00019			1013535	893439	704404	771597	680681	457259	470754	420345	408157	320809	315656				
GER	TR3	NONE	landings	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			1028	NA	NA	772	884	4410	426	NA	NA	NA	184				
IRL	TR1	NONE	landings	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			1847	NA	NA	NA	NA	NA	NA	NA	NA	NA	294				
IRL	TR2	NONE	landings	NA	0	NA	NA	NA	NA	NA	NA	NA	NA	NA			54	884	NA	NA	NA	NA	NA	NA	NA	NA	NA				
NED	BT1	NONE	landings	0.00071	0.00158	0.00324	0.00231	0.00092	0.00042	0.00026	0.00022	2.00E-04	0.00017	9.00E-05			575801	700747	719292	1528652	720068	370417	412420	378796	308516	1090258	1202666				
NED	BT2	NONE	landings	0.06612	0.04251	0.03544	0.03355	0.02173	0.02594	0.02038	0.01642	0.01169	0.00813	0.00379			47724234	44669317	44478122	38823660	37931313	27646215	28696410	28510104	25776297	22428296	23823379				
NED	GN1	NONE	landings	0.00127	0.00108	0.00076	0.00102	0.00043	0.00057	0.00073	5.00E-04	3.00E-04	0.00023	0.00011			460895	416025	387945	511580	521697	507733	419797	357091	316070	295035	233663				
NED	GT1	NONE	landings	NA	NA	NA	NA	NA	3.00E-05	7.00E-04	4.00E-04	0.00011	8.00E-05	8.00E-05			NA	NA	NA	NA	NA	740	26917	37399	21431	29054	7442				
NED	TR1	NONE	landings	0.01208	0.00835	0.00426	0.00379	0.00279	0.00559	0.01007	0.00966	0.00698	0.00813	0.00472			684700	589170	547564	532260	631492	1400068	1316055	1290080	1173220	1329299	1196661				
NED	TR2	NONE	landings	0.00519	0.00286	0.00267	0.00225	0.00221	0.00278	0.0033	0.00237	0.00195	0.00138	0.00092			1932081	1496720	1298918	1224916	1384658	1853682	1334665	1231860	1313554	1277297	1181714				
NED	TR3	NONE	landings	0.00011	0	2.00E-05	NA	0	0	NA	6.00E-05	1.00E-05	NA	NA			59360	42894	43261	20649	20589	4038	274	31973	23268	25897	50615				
NIR	BT1	NONE	landings	0.00041	0.00027	3.00E-05	NA	NA	NA	NA	NA	NA	NA	NA			965239	543305	36825	NA	NA	NA	NA	NA	NA	NA	NA				
NIR	BT2	NONE	landings	5.00E-05	6.00E-05	1.00E-05	NA	NA	NA	NA	NA	NA	NA	NA			20350	47517	16785	NA	NA	NA	NA	NA	NA	NA	NA				
NIR	TR1	CPART13A	landings	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	NA			NA	NA	NA	NA	NA	NA	NA	NA	NA	2672	4310				
NIR	TR1	CPART13B	landings	NA	NA	NA	NA	NA	NA	5.00E-05	2.00E-05	0	0	1.00E-05			NA	NA	NA	NA	NA	NA	41944	23326	33246	16573	7062				
NIR	TR1	CPART13C	landings	NA	NA	NA	NA	NA	NA	1.00E-05	0	NA	NA	NA			NA	NA	NA	NA	NA	NA	14196	6034	NA	2781	16050				
NIR	TR1	NONE	landings	NA	3.00E-05	0.00017	4.00E-05	1.00E-04	0.00011	NA	NA	NA	NA	NA			NA	16948	70710	51951	61460	49104	NA	NA	NA	NA	NA				
NIR	TR2	CPART13A	landings	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	2.00E-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	90338	245268.4				
NIR	TR2	CPART13B	landings	NA	NA	NA	NA	NA	NA	3.00E-05	0	0	0	NA			NA	NA	NA	NA	NA	NA	65544	161981	207697	109647	NA				
NIR	TR2	CPART13C	landings	NA	NA	NA	NA	NA	NA	0.00041	0.00023	3.00E-05	NA	NA			NA	NA	NA	NA	NA	NA	320087	236516	70443	25672	50085				
NIR	TR2	NONE	landings	2.00E-05	3.00E-05	0.00061	0.00064	5.00E-04	0.00028	NA	NA	NA	NA	NA			6784	12440	221904	532885	758972	409182	NA	NA	NA	NA	NA				
SCO	BT1	NONE	landings	0.00108	0.00127	0.00083	0.00081	0.00043	1.00E-05	0	NA	NA	NA	NA			866665	694716	730810	598616	349914	68568	53082	NA	NA	NA	NA				
SCO	BT2	NONE	landings	0.00476	0.00302	0.0021	0.0018	0.00073	0.00053	0.00033	0.00011	NA	1.00E-05	1.00E-05			3765518	4608817	4185262	3108933	2790115	1351720	554376	144306	NA	68262	217190				
SCO	GN1	NONE	landings	0.00035	0.00032	0.00013	9.00E-05	3.00E-05	4.00E-05	0	1.00E-05	1.00E-05	1.00E-05	0			196852	197407	165644	293823	320785	417076	376332	440579	607650	569749	422531.6				
SCO	LL1	NONE	landings	0.00052	2.00E-05	NA	1.00E-05	NA	5.00E-05	2.00E-05	2.00E-05	0	NA	NA			57163	4350	NA	7542	1487	276898	621114	301689	183352	68192	15395.2				
SCO	TR1	CPART13B	landings	NA	NA	NA	NA	NA	NA	0.00439	0.00557	0.00105	NA	NA			NA	NA	NA	NA	NA	NA	692932	955808	810706	36937	NA				
SCO	TR1	CPART13C	landings	NA	NA	NA	NA	NA	NA	0.10732	0.1275	0.10962	0.10233	0.09112			NA	NA	NA	NA	NA	NA	11552644	9486824	9185531	9265940	8340695.27				
SCO	TR1	NONE	landings	0.18506	0.13833	0.13484	0.1235	0.08071	0.0859	NA	NA	NA	NA	NA			16079389	12684328	12158295	11660764	11022982	12176292	NA	NA	NA	NA	NA				
SCO	TR2	CPART13B	landings	NA	NA	NA	NA	NA	NA	0.00118	0.00453	0.00138	NA	NA			NA	NA	NA	NA	NA	NA	4219929	7467356	5277096	287446	NA				
SCO	TR2	CPART13C	landings	NA	NA	NA	NA	NA	NA	0.00309	0.00045	0.00128	0.00174	0.00074			NA	NA	NA	NA	NA	NA	3796988	490013	1285425	4861297	3539873.36				
SCO	TR2	NONE	landings	0.02663	0.01887	0.01843	0.01353	0.00826	0.00687	NA	NA	NA	NA	NA			9998937	9485974	9108232	8561812	8678139	8855742	NA	NA	NA	NA	NA				
SCO	TR3	NONE	landings	NA	3.00E-05	NA	NA	NA	NA	1.00E-05	NA	NA	1.00E-05	1.00E-05			6377	5460	2356	116	11896	NA	33117	27524	NA	20706	1566.6				
SWE	LL1	NONE	landings	NA	NA	0.00056	0.00223	0.00098	0.00151	0.00115	0.0015	0.00105	0.00137	NA			NA	1056	4239	15026	11020	10928	11352	6600	8184	5016	NA				
SWE	TR1	NONE	landings	0.00651	0.00533	0.00635	0.0039	0.00424	0.00418	0.00351	0.00269	0.00236	0.00309	0.00277			381696	375455	387252	237269	269171	333387	245040	196354	189867	190816	270229				
SWE	TR2	NONE	landings	4.00E-05	5.00E-05	0	1.00E-05	2.00E-05	2.00E-05	NA	0	NA	NA	NA			4265	2055	1192	1298	2515	1059	NA	0	NA	3930	NA				
Sum	NA	NA	NA	0.59304	0.4912	0.4834	0.40579	0.23237	0.2621	0.302	0.30932	0.25177	0.2201	0.18701	NA	NA	124944543	116172896	112567435	104205608	94475946	83754374	82574347	77688385	69432434	61680027	63393782.3				
(Sum of Fpars)/estimated F	NA	NA	NA	0.651	0.5563	0.5867	0.574	0.3706	0.4045	0.4848	0.5181	0.4832	0.4957	0.4699	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				

Table 5.3.10.6 **Cod** in area **3b2**. The left part of the table lists estimated F trajectories from the management plan and the ICES 2014 cod assessment, as well as partial Fs for **discards** of fisheries using regulated gears. The right part of the table lists the respective trends in fishing effort (kW days at sea). Cod plan article 13 assignments apply since 2009 or 2010, as interpreted from the background documents of national declarations *). A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

From 2008 (fixed baseline) F reductions of 10 percent until F<=0.4 (Fmsy=0.19)																													
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013			2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
F plan	NA	NA	NA	NA	NA	NA	NA	NA	0.648	0.421	0.4	0.4	0.4	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
reduction F p	NA	NA	NA	NA	NA	NA	NA	NA	NA	-0.35	-0.38	-0.38	-0.38	-0.38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
F estimated				0.911	0.883	0.824	0.707	0.627	0.648	0.623	0.597	0.521	0.444	0.398		Effort estima	124944543	116172896	112567435	104205608	94475946	83754374	82574347	77688385	69432434	61680027	63393782.3		
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-0.04	-0.04	-0.13	-0.15	-0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fpar																EFFORT													
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013		kW days at s	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
BEL	BT1	NONE	discards	0.00113	0	0	0.00624	0	0.00256	0	0	0	0	0.00388			1036595	1439951	1509759	1333012	1320169	984056	575501	535636	671368	963867	1198066		
BEL	BT2	NONE	discards	0.00061	0.00166	0.00383	0.00232	0.00125	0.00317	0.00128	0.00082	0.00012	9.00E-05	7.00E-05			4241216	4294884	3884007	3418751	2707991	3536979	3327143	2480357	1742532	1269319	1178340		
BEL	GN1	NONE	discards	2.00E-05	0	3.00E-05	2.00E-05	0	0	0	0	1.00E-05	0	1.00E-05			111613	152642	148827	127951	128626	158409	161734	97609	95383	45103	36531		
BEL	GT1	NONE	discards	NA	NA	NA	NA	0	0	0	0	0	0	0			NA	NA	NA	NA	15402	18000	5014	19041	18155	25216	12765		
BEL	LL1	NONE	discards	NA	NA	NA	NA	NA	0	NA	0	0	0	NA			NA	NA	NA	NA	NA	1768	NA	1660	128	786	NA		
BEL	TR1	NONE	discards	NA	2.00E-05	NA	NA	0.00014	0.00015	4.00E-05	2.00E-05	1.00E-05	1.00E-05	2.00E-05			NA	1989	NA	NA	161520	201379	220428	212429	128701	183682	145247		
BEL	TR2	NONE	discards	NA	0.00036	0.00051	0.00085	0.00134	0.00196	0.00031	0.00034	0.00049	7.00E-05	6.00E-05			NA	519343	343840	366940	298814	425374	506865	476033	435961	484371	467533		
BEL	TR3	NONE	discards	NA	NA	NA	NA	NA	NA	NA	0	NA	0	NA			NA	NA	NA	NA	NA	663	NA	1899	NA	1175	6734		
DEN	BT1	NONE	discards	0.00017	0	0	0.00049	0	0.00026	0	0	0	0	6.00E-05			1122195	887830	996227	511642	527282	370939	366679	513056	373757	317294	288845.14		
DEN	BT2	NONE	discards	1.00E-05	0.00018	8.00E-05	1.00E-05	0	1.00E-05	2.00E-05	NA	NA	NA	0			89457	38279	62036	42447	1390	2894	49163	NA	440	242	5884		
DEN	GN1	NONE	discards	0.00029	1.00E-04	0.0025	0.0017	0	2.00E-05	0	0.00016	0.00111	0.00051	7.00E-04			2077492	2164307	2031057	1795453	949658	1003603	1050057	1195617	1136118	1080149	1059194.75		
DEN	GT1	NONE	discards	3.00E-05	0	1.00E-05	9.00E-05	0	0	1.00E-05	0	8.00E-05	6.00E-05	0.00011			138641	244626	237800	175339	98614	100902	158205	130662	182841	321220	483287		
DEN	LL1	NONE	discards	0	0	0	0	0	0	0	0	1.00E-05	0	0			105319	79773	41626	42159	15924	25347	28769	45576	29388	21089	23908		
DEN	TR1	NONE	discards	0.00886	0.00829	0.04659	0.01336	0.01568	0.00764	0.00658	0.00399	0.00092	0.00304	0.00283			7137074	6422756	6405176	6020308	3801069	4034203	3793148	3592389	3664621	3593770	3346857.69		
DEN	TR2	NONE	discards	0.00276	0.00079	0.00352	0.00234	0.00216	0.00067	0.00012	0.00014	7.00E-05	4.00E-05	4.00E-05			2597949	2580788	1916695	1405216	1080616	706247	569359	431399	370536	312765	267597.2		
DEN	TR3	NONE	discards	2.00E-05	1.00E-05	2.00E-05	0	0	0	0	NA	NA	NA	0			3084554	3026636	2373302	1761200	799803	916558	577813	1063007	336257	477168	824551		
ENG	BT1	CPART13B	discards	NA	NA	NA	NA	NA	NA	NA	0	0	0	0			NA	NA	NA	NA	NA	NA	NA	202685	169873	384590	575557.5		
ENG	BT1	NONE	discards	5.00E-05	0	0	0.00028	0	1.00E-05	0	NA	NA	0	NA			1060809	671130	618160	1321240	305837	228530	265710	NA	NA	40284	NA		
ENG	BT2	CPART13B	discards	NA	NA	NA	NA	NA	NA	0	0	0	0	1.00E-05			NA	NA	NA	NA	NA	NA	47771	2863860	2644958	2412375	2853225.5		
ENG	BT2	NONE	discards	0.00012	0.00127	0.00088	0.00014	9.00E-05	0.00024	0.00016	3.00E-05	0	1.00E-05	0			2739407	3559560	4046341	2974409	3251512	1975399	2444807	401247	96356	79036	28485.4		
ENG	GN1	CPART13B	discards	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0			NA	NA	NA	NA	NA	NA	NA	111390	152556	102172	177099.99		
ENG	GN1	NONE	discards	5.00E-05	1.00E-05	0.00027	0.00015	0	0	0	3.00E-05	0.00014	7.00E-05	3.00E-05			337639	359134	308275	308517	180503	70981	175602	74835	73826	61957	28671.5		
ENG	GT1	NONE	discards	0	0	0	1.00E-05	0	0	0	0	1.00E-05	0	0			1092	1564	5342	11100	3291	12918	12654	17355	12003	5823	12168.66		
ENG	LL1	NONE	discards	0	0	0	0	0	0	0	0	0	0	0			102465	83137	142602	54974	15752	6164	4318	12052	6253	15449	8401.48		
ENG	TR1	CPART13B	discards	NA	NA	NA	NA	NA	NA	3.00E-05	8.00E-05	4.00E-05	1.00E-05	7.00E-05			NA	NA	NA	NA	NA	NA	898933	964206	874021	939503	1089822.3		
ENG	TR1	CPART13C	discards	NA	NA	NA	NA	NA	NA	0.00034	0.00186	0.00078	0.00087	0.00306			NA	NA	NA	NA	NA	NA	1242445	1144923	1254762	931671	1127181.16		
ENG	TR1	NONE	discards	0.00382	0.00216	0.00238	0.00548	0.00199	0.00497	NA	NA	NA	NA	0			2343719	1497618	1254880	1823891	1501499	1846925	NA	NA	NA	NA	NA		
ENG	TR2	CPART13B	discards	NA	NA	NA	NA	NA	NA	0.00043	0.00063	0.00082	7.00E-05	7.00E-05			NA	NA	NA	NA	NA	NA	260311	873808	721452	865045	542145.84		
ENG	TR2	CPART13C	discards	NA	NA	NA	NA	NA	NA	0.00213	0.00096	0.00098	0.00031	9.00E-05			NA	NA	NA	NA	NA	NA	1376367	482080	524579	267661	236427.7		
ENG	TR2	NONE	discards	0.00156	0.00136	0.00111	0.00439	0.00088	0.00099	NA	NA	NA	NA	NA			1853471	1705154	1937849	1707774	1621394	1794132	NA	NA	NA	NA	NA		
ENG	TR3	NONE	discards	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	0			1988	7840	3315	6360	1220	492	82	718	621	246	216		
FRA	BT2	NONE	discards	1.00E-05	1.00E-05	1.00E-05	0	1.00E-05	2.00E-05	1.00E-05	0	0	0	0			96232	94514	75129	66203	103453	88053	88053	40118	67545	57044	56091		
FRA	GN1	NONE	discards	0	0	0	0	0	0	0	0	0	0	0			58454	64809	46058	31231	61545	47746	46493	2149	7803	3322	1536		
FRA	GT1	NONE	discards	1.00E-05	0	0	3.00E-05	0	0	1.00E-05	0	5.00E-05	3.00E-05	6.00E-05			830136	793053	813190	1785801	1703889	1010253	1010253	634781	690428	636164	599605.33		
FRA	TR1	CPART13B	discards	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	6.00E-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	29600	2129413.33		
FRA	TR1	NONE	discards	0.00018	0.00016	0.00221	0.00227	0.00097	0.01609	0.00426	3.00E-05	5.00E-05	NA	1.00E-05			3347063	2299125	1901534	2675348	2418190	2714146	2622538	1913401	1727371	324	20972.33		
FRA	TR2	NONE	discards	0.00776	0.00184	0.00269	0.00765	0.01845	0.01303	0.00263	0.00197	0.00251	0.00017	0.00023			1961970	1911744	1713917	1558413	1727617	1930459	1924156	1089380	960559	725367	478490.58		
FRA	TR3	NONE	discards	NA	NA	NA	NA	NA	NA	NA	0	0	NA	NA			NA	1753	7121	1319	NA	2184	2184	13827	2210	1250	84.5		

Table 5.3.10.6 continued

GER	BT1	NONE	discards	1.00E-05	0	0	4.00E-05	0	3.00E-05	NA	NA	NA	NA	0			47736	29712	2128	53986	30297	16790	NA	884	1535	2793	65906
GER	BT2	NONE	discards	9.00E-05	0.00753	0.00027	0.00058	4.00E-05	5.00E-05	0.00012	0.00012	2.00E-05	1.00E-04	5.00E-05			1669870	2060092	2212397	1927398	1590823	1464163	1666322	1801775	1242171	1071896	1290574
GER	GN1	NONE	discards	1.00E-05	1.00E-05	0.00021	0.00015	0	0	0	3.00E-05	1.00E-04	6.00E-05	4.00E-05			191424	163463	271624	235427	145714	278008	233164	275364	225797	269836	241938
GER	GT1	NONE	discards	NA	NA	NA	NA	NA	NA	0	0	0	NA	NA			NA	NA	NA	1547	NA	NA	15444	1188	924	NA	NA
GER	TR1	CPART13B	discards	NA	NA	NA	NA	NA	NA	0.00051	7.00E-05	0.00048	2.00E-05	0			NA	NA	NA	NA	NA	NA	808679	898007	815730	747693	722448
GER	TR1	NONE	discards	0.00282	0.0038	0.0098	0.00946	0.00724	0.01313	0.00323	0.00168	0.00122	0.00121	0.00111			1756193	1526666	1988209	2176131	1736694	1585192	759368	829604	741965	495051	598769
GER	TR2	CPART13B	discards	NA	NA	NA	NA	NA	NA	1.00E-05	0.00019	9.00E-05	0	0			NA	NA	NA	NA	NA	NA	2420	39820	31240	14740	20680
GER	TR2	NONE	discards	0.0021	0.00102	0.00152	0.00111	0.00123	0.00109	0.00028	6.00E-04	4.00E-04	8.00E-05	4.00E-05			1013535	893439	704404	771597	680681	457259	470754	420345	408157	320809	315656
GER	TR3	NONE	discards	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			1028	NA	NA	772	884	4410	426	NA	NA	NA	184
IRL	TR1	NONE	discards	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			1847	NA	NA	NA	NA	NA	NA	NA	NA	NA	294
IRL	TR2	NONE	discards	NA	0	NA	NA	NA	NA	NA	NA	NA	NA	NA			54	884	NA	NA	NA	NA	NA	NA	NA	NA	NA
NED	BT1	NONE	discards	7.00E-05	0	0	0.00083	0	0.00027	0	0	0	0	0			575801	700747	719292	1528652	720068	370417	412420	378796	308516	1090258	1202666
NED	BT2	NONE	discards	0.00375	0.02358	0.0138	0.00548	0.00124	0.00791	0.00403	0.00219	0.00096	0.00118	0.00048			47724234	44669317	44478122	38823660	37931313	27646215	28696410	28510104	25776297	22428296	23823379
NED	GT1	NONE	discards	NA	NA	NA	NA	NA	0	0	0	1.00E-05	0	1.00E-05			NA	NA	NA	NA	NA	740	26917	37399	21431	29054	7442
NED	GN1	NONE	discards	1.00E-05	0	3.00E-05	4.00E-05	0	0	0	0	2.00E-05	1.00E-05	1.00E-05			460895	416025	387945	511580	521697	507733	419797	357091	316070	295035	233663
NED	TR3	NONE	discards	1.00E-05	0	0	NA	0	0	NA	0	0	NA	NA			59360	42894	43261	20649	20589	4038	274	31973	23268	25897	50615
NED	TR1	NONE	discards	0.00109	0.0014	0.00116	0.00084	0.00169	0.00644	0.00192	0.00095	0.00022	0.00062	0.00114			684700	589170	547564	532260	631492	1400068	1316055	1290080	1173220	1329299	1196661
NED	TR2	NONE	discards	0.00334	0.00103	0.00175	0.00227	0.00583	0.00551	0.00097	0.00138	0.00121	0.00046	0.00019			1932081	1496720	1298918	1224916	1384658	1853682	1334665	1231860	1313554	1277297	1181714
NIR	BT1	NONE	discards	3.00E-05	0	0	NA	NA	NA	NA	NA	NA	NA	NA			965239	543305	36825	NA	NA	NA	NA	NA	NA	NA	NA
NIR	BT2	NONE	discards	0	1.00E-05	0	NA	NA	NA	NA	NA	NA	NA	NA			20350	47517	16785	NA	NA	NA	NA	NA	NA	NA	NA
NIR	TR1	CPART13A	discards	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	NA			NA	NA	NA	NA	NA	NA	NA	NA	NA	2672	4310
NIR	TR1	CPART13B	discards	NA	NA	NA	NA	NA	NA	3.00E-05	0	0	0	0			NA	NA	NA	NA	NA	NA	41944	23326	33246	16573	7062
NIR	TR1	CPART13C	discards	NA	NA	NA	NA	NA	NA	0	0	NA	NA	NA			NA	NA	NA	NA	NA	NA	14196	6034	NA	2781	16050
NIR	TR1	NONE	discards	NA	0	4.00E-05	1.00E-05	3.00E-05	0.00012	NA	NA	NA	NA	NA			NA	16948	70710	51951	61460	49104	NA	NA	NA	NA	NA
NIR	TR2	CPART13A	discards	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0			NA	NA	NA	NA	NA	NA	NA	NA	NA	90338	245268.4
NIR	TR2	CPART13B	discards	NA	NA	NA	NA	NA	NA	9.00E-05	0	1.00E-05	0	NA			NA	NA	NA	NA	NA	NA	65544	161981	207697	109647	NA
NIR	TR2	CPART13C	discards	NA	NA	NA	NA	NA	NA	0.00093	2.00E-04	9.00E-05	NA	NA			NA	NA	NA	NA	NA	NA	320087	236516	70443	25672	50085
NIR	TR2	NONE	discards	2.00E-05	1.00E-05	0.00028	0.00108	0.00214	0.00067	NA	NA	NA	NA	NA			6784	12440	221904	532885	758972	409182	NA	NA	NA	NA	NA
SCO	BT1	NONE	discards	1.00E-04	0	0	0.00027	0	0	0	NA	NA	NA	NA			866665	694716	730810	598616	349914	68568	53082	NA	NA	NA	NA
SCO	BT2	NONE	discards	0.00024	0.00178	0.00081	0.00027	6.00E-05	0.00019	6.00E-05	1.00E-05	NA	0	0			3765518	4608817	4185262	3108933	2790115	1351720	554376	144306	NA	68262	217190
SCO	GN1	NONE	discards	0	0	1.00E-05	0	0	0	0	0	0	0	0			196852	197407	165644	293823	320785	417076	376332	440579	607650	569749	422531.6
SCO	LL1	NONE	discards	0	0	NA	0	NA	0	0	0	0	NA	NA			57163	4350	NA	7542	1487	276898	621114	301689	183352	68192	15395.2
SCO	TR1	CPART13B	discards	NA	NA	NA	NA	NA	NA	0.00301	0.00187	0.00025	NA	NA			NA	NA	NA	NA	NA	NA	692932	955808	810706	36937	NA
SCO	TR1	CPART13C	discards	NA	NA	NA	NA	NA	NA	0.07353	0.03347	0.01478	0.02463	0.04189			NA	NA	NA	NA	NA	NA	11552644	9486824	9185531	9265940	8340695.27
SCO	TR1	NONE	discards	0.01773	0.01701	0.01786	0.02202	0.0612	0.14766	NA	NA	NA	NA	NA			16079389	12684328	12158295	11660764	11022982	12176292	NA	NA	NA	NA	NA
SCO	TR2	CPART13B	discards	NA	NA	NA	NA	NA	NA	0.00328	0.01108	0.00531	NA	NA			NA	NA	NA	NA	NA	NA	4219929	7467356	5277096	287446	NA
SCO	TR2	CPART13C	discards	NA	NA	NA	NA	NA	NA	0.00859	0.00065	0.00493	0.00948	0.00288			NA	NA	NA	NA	NA	NA	3796988	490013	1285425	4861297	3539873.36
SCO	TR2	NONE	discards	0.01793	0.00827	0.01198	0.01404	0.02959	0.01399	NA	NA	NA	NA	NA			9998937	9485974	9108232	8561812	8678139	8855742	NA	NA	NA	NA	NA
SCO	TR3	NONE	discards	NA	0	NA	NA	NA	NA	0	NA	NA	0	0			6377	5460	2356	116	11896	NA	33117	27524	NA	20706	1566.6
SWE	LL1	NONE	discards	NA	NA	0	0	0	0	0	0	1.00E-05	0	NA			NA	1056	4239	15026	11020	10928	11352	6600	8184	5016	NA
SWE	TR2	NONE	discards	2.00E-05	1.00E-05	0	0	6.00E-05	1.00E-05	NA	0	NA	NA	NA			4265	2055	1192	1298	2515	1059	NA	0	NA	3930	NA
SWE	TR1	NONE	discards	7.00E-04	0.00059	0.00207	0.00091	0.00293	0.00514	0.00054	0.00021	8.00E-05	0.00023	3.00E-04			381696	375455	387252	237269	269171	333387	245040	196354	189867	190816	270229
Sum	NA	NA	NA	0.07753	0.08427	0.12823	0.10722	0.15624	0.254	0.11949	0.06576	0.03839	0.04344	0.05961	NA	NA	124944543	116172896	112567435	104205608	94475946	83754374	82574347	77688385	69432434	61680027	63393782.3
(Sum of Fpars)/estimated F	NA	NA	NA	0.0851	0.0954	0.1556	0.1517	0.2492	0.392	0.1918	0.1102	0.0737	0.0978	0.1498	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 5.3.10.7 **Cod** in area **3b3**. The left part of the table lists estimated F trajectories from the management plan and the ICES 2014 cod assessment, as well as partial Fs for **catches** of fisheries using regulated gears. The right part of the table lists the respective trends in fishing effort (kW days at sea). Cod plan article 13 assignments apply since 2009 or 2010, as interpreted from the background documents of national declarations *). A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

From 2008 (fixed baseline) F reductions of 10 percent until F<=0.4 (Fmsy=0.19)																												
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013			2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
F plan	NA	NA	NA	NA	NA	NA	NA	NA	0.648	0.421	0.4	0.4	0.4	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
reduction F plan	NA	NA	NA	NA	NA	NA	NA	NA	NA	-0.35	-0.38	-0.38	-0.38	-0.38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
F estimated				0.911	0.883	0.824	0.707	0.627	0.648	0.623	0.597	0.521	0.444	0.398		Effort estima	20761666	21290857	19642948	22846199	23108496	18504005	17935000	13554961	13097586	12789862	12227424.1	
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-0.04	-0.04	-0.13	-0.15	-0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fpar																EFFORT												
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013		kW days at s	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
BEL	BT1	NONE	catches	NA	NA	NA	NA	NA	1.00E-05	NA	NA	NA	NA	2.00E-05			NA	NA	NA	NA	NA	3578	NA	NA	NA	NA	33947
BEL	BT2	NONE	catches	0.0014	0.00126	0.0012	0.00199	0.0015	0.003	0.00101	0.00067	0.00057	0.00036	0.00035			2583050	2422541	2068612	2782454	3183635	2691356	2204585	1907807	1861455	1541411	1629221	
BEL	GN1	NONE	catches	9.00E-05	1.00E-05	2.00E-05	3.00E-05	0	1.00E-05	1.00E-05	0	NA	NA	NA			16607	18591	19026	23556	906	10560	19527	10885	NA	NA	NA	
BEL	GT1	NONE	catches	NA	NA	NA	NA	2.00E-05	1.00E-05	0	1.00E-05	0	1.00E-05	0			NA	NA	NA	NA	26676	16200	7416	21600	30600	34086	34684	
BEL	TR1	NONE	catches	NA	NA	NA	NA	NA	NA	NA	0	NA	NA	0			NA	NA	NA	NA	NA	NA	NA	10219	1858	4645	5795	
BEL	TR2	NONE	catches	NA	2.00E-05	1.00E-05	4.00E-05	1.00E-05	7.00E-05	3.00E-05	8.00E-05	9.00E-05	5.00E-05	9.00E-05			NA	27043	10703	23328	13756	15816	46344	132308	189285	212691	229843	
ENG	BT2	CPART13B	catches	NA	NA	NA	NA	NA	NA	3.00E-05	1.00E-05	0	1.00E-05	0			NA	NA	NA	NA	NA	NA	108485	123228	101532	144684	108269.65	
ENG	BT2	NONE	catches	0.00037	0.00026	0.00039	0.00043	2.00E-04	3.00E-04	0.00013	6.00E-05	5.00E-05	4.00E-05	2.00E-05			833384	671323	423730	359264	324577	368882	295714	148793	99461	96917	90607.52	
ENG	GN1	NONE	catches	1.00E-05	0	1.00E-05	1.00E-05	0	1.00E-05	4.00E-05	3.00E-05	4.00E-05	1.00E-05	0			4498	3373	219	2529	1699	4957	12756	25620	25787	10339	3563	
ENG	GT1	NONE	catches	3.00E-05	3.00E-05	2.00E-05	1.00E-05	1.00E-05	1.00E-05	1.00E-05	1.00E-05	1.00E-05	0	0			11295	8742	9183	6081	7708	9580	5968	8324	8075	8332	7694	
ENG	LL1	CPART13B	catches	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	NA			NA	NA	NA	NA	NA	NA	NA	30899	25183	24565	27489	
ENG	LL1	NONE	catches	0	0	1.00E-05	0	0	0	0	NA	NA	NA	NA			44603	31882	39988	40165	37923	39699	40081	15397	13022	11097	12344	
ENG	TR1	CPART13C	catches	NA	NA	NA	NA	NA	NA	2.00E-05	0	0	0	0			NA	NA	NA	NA	NA	NA	4350	2226	11276	1229	2445.6	
ENG	TR1	NONE	catches	0.00012	0	1.00E-05	NA	0	1.00E-05	NA	NA	NA	NA	NA			31738	473	1306	788	268	4154	NA	NA	NA	NA	NA	
ENG	TR2	CPART13B	catches	NA	NA	NA	NA	NA	NA	1.00E-04	0.00014	9.00E-05	1.00E-04	9.00E-05			NA	NA	NA	NA	NA	NA	87339	281244	301325	404526	363919.12	
ENG	TR2	CPART13C	catches	NA	NA	NA	NA	NA	NA	0.00016	7.00E-05	9.00E-05	8.00E-05	7.00E-05			NA	NA	NA	NA	NA	NA	193078	89159	73206	82494	100380	
ENG	TR2	NONE	catches	0.00026	4.00E-04	0.00052	0.00029	0.00016	0.00015	NA	NA	NA	NA	NA			245225	271549	249748	184677	148256	165497	NA	NA	NA	NA	NA	
ENG	TR3	NONE	catches	0	NA	NA	NA	NA	0	NA	NA	NA	NA	NA			87	NA	NA	NA	252	NA	NA	NA	NA	NA	NA	
FRA	BT2	NONE	catches	0.00018	0.00013	4.00E-05	0.00013	0.00011	9.00E-05	6.00E-05	1.00E-05	1.00E-05	1.00E-05	1.00E-05			1118375	1278065	919129	1258094	1135160	1106661	1106661	570711	542158	675860	529294.83	
FRA	GN1	NONE	catches	0.00662	0.00216	0.00192	0.00293	0.00224	0.00109	0.00103	0.00039	0.00034	0.00048	0.00027			563990	341495	243018	301125	386493	150995	150995	98661	45185	109662	98839.5	
FRA	GT1	NONE	catches	0.00783	0.00269	0.0034	0.00353	0.00283	0.00191	0.00179	0.00185	0.00171	0.00138	0.00099			2553851	2632950	3308229	3681721	3588824	2611489	2607735	1796377	1839296	1771276	1816223.83	
FRA	LL1	NONE	catches	0.00015	0.00022	9.00E-05	9.00E-05	5.00E-05	5.00E-05	5.00E-05	2.00E-05	4.00E-05	4.00E-05	2.00E-05			144804	163370	97311	114742	162573	116680	116680	118214	86512	69920	97799	
FRA	TR1	NONE	catches	0.00104	6.00E-05	7.00E-05	0.00022	0.00159	0.00063	0.00059	0.00016	0.00033	1.00E-04	0.00024			138153	49849	60402	49633	224000	73652	73652	91341	113909	53370	119493.24	
FRA	TR2	CPART13B	catches	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.00E-05	1.00E-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	289041	314664.84	
FRA	TR2	NONE	catches	0.02378	0.01155	0.0131	0.01223	0.01266	0.00791	0.00747	0.00972	0.00736	0.0054	0.00487			12192837	12929692	11713996	13485158	13060035	10070068	9834906	6980814	6766474	6300774	5578182.08	
FRA	TR3	NONE	catches	0	0	0	NA	NA	1.00E-05	1.00E-05	8.00E-05	2.00E-05	2.00E-05	0			76197	79758	99705	114293	138596	65643	64323	134347	122925	92978	80846.49	
GBJ	BT2	NONE	catches	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA			5180	14375	10346	NA	NA	NA	NA	NA	NA	NA	NA	
GBJ	TR2	CPART13B	catches	NA	NA	NA	NA	NA	NA	0	NA	NA	NA	NA			NA	NA	NA	NA	NA	NA	7480	NA	NA	NA	NA	
GBJ	TR2	NONE	catches	3.00E-05	0	0	1.00E-05	1.00E-05	2.00E-05	NA	NA	NA	NA	NA			27897	20201	23483	10560	13420	9680	NA	NA	NA	NA	NA	
NED	BT2	NONE	catches	NA	0	NA	0	NA	NA	0	NA	NA	NA	NA			NA	5147	NA	4796	NA	NA	1471	NA	663	NA	NA	
NED	TR1	NONE	catches	4.00E-04	NA	NA	NA	NA	NA	NA	NA	0	NA	0			5083	4062	NA	NA	NA	NA	5888	4981	3472	NA	4000	
NED	TR2	NONE	catches	0.00056	3.00E-04	0.00021	0.00021	0.00082	0.00038	0.00044	0.00063	0.00064	4.00E-04	0.00036			152407	316376	344814	287224	434839	625656	602354	701538	608347	706896	872099	
SCO	BT2	NONE	catches	NA	NA	NA	NA	3.00E-05	NA	NA	NA	NA	NA	NA			NA	NA	NA	NA	9776	3055	6353	NA	NA	NA	NA	
SCO	TR1	CPART13C	catches	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0			NA	NA	NA	NA	NA	NA	NA	NA	1292	NA	8779.35	
SCO	TR2	CPART13B	catches	NA	NA	NA	NA	NA	NA	2.00E-05	0	0	NA	NA			NA	NA	NA	NA	NA	NA	66292	250268	158225	90437	NA	
SCO	TR2	CPART13C	catches	NA	NA	NA	NA	NA	NA	6.00E-05	NA	0	NA	0			NA	NA	NA	NA	NA	NA	264567	NA	67063	52632	57000	
SCO	TR2	NONE	catches	0	NA	NA	3.00E-05	0.00014	1.00E-04	NA	NA	NA	NA	NA			12405	NA	NA	116011	209124	340147	NA	NA	NA	NA	NA	
Sum	NA	NA	NA	0.04287	0.01909	0.02102	0.02218	0.02238	0.01577	0.01306	0.01394	0.01139	0.0085	0.00741	NA	NA	20761666	21290857	19642948	22846199	23108496	18504005	17935000	13554961	13097586	12789862	12227424.1	
(Sum of Fpars)/estimated F	NA	NA	NA	0.0471	0.0216	0.0255	0.0314	0.0357	0.0243	0.021	0.0234	0.0219	0.0191	0.0186	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

Table 5.3.10.8 Cod in area **3b3**. The left part of the table lists estimated F trajectories from the management plan and the ICES 2014 cod assessment, as well as partial Fs for **landings** of fisheries using regulated gears. The right part of the table lists the respective trends in fishing effort (kW days at sea). Cod plan article 13 assignments apply since 2009 or 2010, as interpreted from the background documents of national declarations *). A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

From 2008 (fixed baseline) F reductions of 10 percent until F<=0.4 (Fmsy=0.19)																													
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013			2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
F plan	NA	NA	NA	NA	NA	NA	NA	NA	0.648	0.421	0.4	0.4	0.4	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
reduction F plan	NA	NA	NA	NA	NA	NA	NA	NA	NA	-0.35	-0.38	-0.38	-0.38	-0.38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
F estimated				0.911	0.883	0.824	0.707	0.627	0.648	0.623	0.597	0.521	0.444	0.398			Effort estima	20761666	2129085	19642948	22846199	23108496	18504005	17935000	13554961	13097586	12789862	12227424.1
NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	-0.04	-0.04	-0.13	-0.15	-0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fpar																	EFFORT												
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013			kW days at s	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
SCO	BT2	NONE	landings	NA	NA	NA	NA	2.00E-05	NA	NA	NA	NA	NA	NA				NA	NA	NA	NA	9776	3055	6353	NA	NA	NA	NA
BEL	BT1	NONE	landings	NA	NA	NA	NA	NA	1.00E-05	NA	NA	NA	NA	2.00E-05				NA	NA	NA	NA	NA	3578	NA	NA	NA	NA	33947
BEL	BT2	NONE	landings	0.0014	0.00106	0.00116	0.00163	0.00113	0.00194	0.00092	0.00061	0.00054	0.00034	0.00035				2583050	2422541	2068612	2782454	3183635	2691356	2204585	1907807	1861455	1541411	1629221
BEL	GN1	NONE	landings	9.00E-05	1.00E-05	2.00E-05	3.00E-05	0	1.00E-05	1.00E-05	0	NA	NA	NA				16607	18591	19026	23556	906	10560	19527	10885	NA	NA	NA
BEL	GT1	NONE	landings	NA	NA	NA	NA	2.00E-05	1.00E-05	0	1.00E-05	0	1.00E-05	0				NA	NA	NA	NA	26676	16200	7416	21600	30600	34086	34684
BEL	TR1	NONE	landings	NA	NA	NA	NA	NA	NA	NA	0	NA	NA	0				NA	NA	NA	NA	NA	NA	NA	10219	1858	4645	5795
BEL	TR2	NONE	landings	NA	2.00E-05	1.00E-05	4.00E-05	1.00E-05	6.00E-05	3.00E-05	7.00E-05	8.00E-05	5.00E-05	8.00E-05				NA	27043	10703	23328	13756	15816	46344	132308	189285	212691	229843
ENG	BT2	CPART13B	landings	NA	NA	NA	NA	NA	NA	3.00E-05	1.00E-05	0	1.00E-05	0				NA	NA	NA	NA	NA	NA	108485	123228	101532	144684	108269.65
ENG	BT2	NONE	landings	0.00037	2.00E-04	0.00038	0.00041	0.00017	0.00023	0.00011	5.00E-05	5.00E-05	3.00E-05	2.00E-05				833384	671323	423730	359264	324577	368882	295714	148793	99461	96917	90607.52
ENG	GN1	NONE	landings	1.00E-05	0	1.00E-05	1.00E-05	0	1.00E-05	4.00E-05	3.00E-05	4.00E-05	1.00E-05	0				4498	3373	219	2529	1699	4957	12756	25620	25787	10339	3563
ENG	GT1	NONE	landings	3.00E-05	3.00E-05	2.00E-05	1.00E-05	1.00E-05	1.00E-05	1.00E-05	1.00E-05	0	0	0				11295	8742	9183	6081	7708	9580	5968	8324	8075	8332	7694
ENG	LL1	CPART13B	landings	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	NA				NA	NA	NA	NA	NA	NA	NA	30899	25183	24565	27489
ENG	LL1	NONE	landings	0	0	1.00E-05	0	0	0	0	NA	NA	NA	NA				44603	31882	39988	40165	37923	39699	40081	15397	13022	11097	12344
ENG	TR1	CPART13C	landings	NA	NA	NA	NA	NA	NA	2.00E-05	0	0	0	0				NA	NA	NA	NA	NA	NA	4350	2226	11276	1229	2445.6
ENG	TR1	NONE	landings	0.00012	0	1.00E-05	NA	0	1.00E-05	NA	NA	NA	NA	NA				31738	473	1306	788	268	4154	NA	NA	NA	NA	NA
ENG	TR2	CPART13B	landings	NA	NA	NA	NA	NA	NA	9.00E-05	0.00014	9.00E-05	1.00E-04	9.00E-05				NA	NA	NA	NA	NA	NA	87339	281244	301325	404526	363919.12
ENG	TR2	CPART13C	landings	NA	NA	NA	NA	NA	NA	8.00E-05	7.00E-05	7.00E-05	8.00E-05	7.00E-05				NA	NA	NA	NA	NA	NA	193078	89159	73206	82494	100380
ENG	TR2	NONE	landings	0.00026	4.00E-04	0.00052	0.00029	0.00016	0.00014	NA	NA	NA	NA	NA				245225	271549	249748	184677	148256	165497	NA	NA	NA	NA	NA
ENG	TR3	NONE	landings	0	NA	NA	NA	0	NA	NA	NA	NA	NA	NA				87	NA	NA	NA	252	NA	NA	NA	NA	NA	NA
FRA	BT2	NONE	landings	0.00018	0.00011	4.00E-05	0.00011	8.00E-05	6.00E-05	6.00E-05	1.00E-05	1.00E-05	1.00E-05	1.00E-05				1118375	1278065	919129	1258094	1135160	1106661	1106661	570711	542158	675860	529294.83
FRA	GN1	NONE	landings	0.00662	0.00216	0.00192	0.00293	0.00224	0.00109	0.00103	0.00039	0.00034	0.00048	0.00027				563990	341495	243018	301125	386493	150995	150995	98661	45185	109662	98839.5
FRA	GT1	NONE	landings	0.00783	0.00269	0.0034	0.00353	0.00283	0.00191	0.00179	0.00181	0.00156	0.00133	0.00099				2553851	2632950	3308229	3681721	3588824	2611489	2607735	1796377	1839296	1771276	1816223.83
FRA	LL1	NONE	landings	0.00015	0.00022	9.00E-05	9.00E-05	5.00E-05	5.00E-05	5.00E-05	2.00E-05	4.00E-05	4.00E-05	2.00E-05				144804	163370	97311	114742	162573	116680	116680	118214	86512	69920	97799
FRA	TR1	NONE	landings	0.00104	6.00E-05	7.00E-05	0.00022	0.00159	0.00063	0.00059	0.00012	0.00033	9.00E-05	0.00023				138153	49849	60402	49633	224000	73652	73652	91341	113909	53370	119493.24
FRA	TR2	CPART13B	landings	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.00E-05	1.00E-05				NA	NA	NA	NA	NA	NA	NA	NA	NA	289041	314664.84
FRA	TR2	NONE	landings	0.02378	0.01155	0.0131	0.01223	0.01266	0.00785	0.00747	0.00795	0.00709	0.00495	0.00406				12192837	12929692	11713996	13485158	13060035	10070068	9834906	6980814	6766474	6300774	5578182.08
FRA	TR3	NONE	landings	0	0	0	NA	NA	1.00E-05	1.00E-05	8.00E-05	2.00E-05	2.00E-05	0				76197	79758	99705	114293	138596	65643	64323	134347	122925	92978	80846.49
GBJ	BT2	NONE	landings	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA				5180	14375	10346	NA	NA	NA	NA	NA	NA	NA	NA
GBJ	TR2	CPART13B	landings	NA	NA	NA	NA	NA	NA	0	NA	NA	NA	NA				NA	NA	NA	NA	NA	NA	7480	NA	NA	NA	NA
GBJ	TR2	NONE	landings	3.00E-05	0	0	1.00E-05	1.00E-05	2.00E-05	NA	NA	NA	NA	NA				27897	20201	23483	10560	13420	9680	NA	NA	NA	NA	NA
NED	BT2	NONE	landings	NA	0	NA	0	NA	NA	0	NA	NA	NA	NA				NA	5147	NA	4796	NA	NA	1471	NA	663	NA	NA
NED	TR1	NONE	landings	4.00E-04	NA	NA	NA	NA	NA	NA	NA	0	NA	0				5083	4062	NA	NA	NA	NA	5888	4981	3472	NA	4000
NED	TR2	NONE	landings	0.00056	3.00E-04	0.00021	0.00021	0.00082	0.00038	0.00044	0.00049	6.00E-04	0.00036	0.00032				152407	316376	344814	287224	434839	625656	602354	701538	608347	706896	872099
SCO	TR1	CPART13C	landings	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0				NA	NA	NA	NA	NA	NA	NA	NA	1292	NA	8779.35
SCO	TR2	CPART13B	landings	NA	NA	NA	NA	NA	NA	1.00E-05	0	0	NA	NA				NA	NA	NA	NA	NA	NA	66292	250268	158225	90437	NA
SCO	TR2	CPART13C	landings	NA	NA	NA	NA	NA	NA	2.00E-05	NA	0	NA	0				NA	NA	NA	NA	NA	NA	264567	NA	67063	52632	57000
SCO	TR2	NONE	landings	0	NA	NA	3.00E-05	0.00014	1.00E-04	NA	NA	NA	NA	NA				12405	NA	NA	116011	209124	340147	NA	NA	NA	NA	NA
Sum	NA	NA	NA	0.04287	0.01881	0.02097	0.02178	0.02194	0.01453	0.01281	0.01187	0.01086	0.00792	0.00654	NA	NA		20761666	2129085	19642948	22846199	23108496	18504005	17935000	13554961	13097586	12789862	12227424.1
(Sum of Fpars)/estimated F	NA	NA	NA	0.0471	0.0213	0.0254	0.0308	0.035	0.0224	0.0206	0.0199	0.0208	0.0178	0.0164	NA	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 5.3.10.9 **Cod** in area **3b3**. The left part of the table lists estimated F trajectories from the management plan and the ICES 2014 cod assessment, as well as partial Fs for **discards** of fisheries using regulated gears. The right part of the table lists the respective trends in fishing effort (kW days at sea). Cod plan article 13 assignments apply since 2009 or 2010, as interpreted from the background documents of national declarations *). A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

From 2008 (fixed baseline) F reductions of 10 percent until F<=0.4 (Fmsy=0.19)																														
				2003		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013			2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
F plan	NA	NA	NA	NA		NA	NA	NA	NA	0.648	0.421	0.4	0.4	0.4	0.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
reduction F plan	NA	NA	NA	NA		NA	NA	NA	NA	NA	-0.35	-0.38	-0.38	-0.38	-0.38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
F estimated				0.911		0.883	0.824	0.707	0.627	0.648	0.623	0.597	0.521	0.444	0.398		Effort estima	20761666	21290857	19642948	22846199	23108496	18504005	17935000	13554961	13097586	12789862	12227424.1
NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	-0.04	-0.04	-0.13	-0.15	-0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fpar																	EFFORT													
Fpar				2003		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013		kW days at s	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
BEL	BT1	NONE	discards	NA		NA	NA	NA	NA	0	NA	NA	NA	NA	0			NA	NA	NA	NA	NA	3578	NA	NA	NA	NA	33947
BEL	BT2	NONE	discards	0		2.00E-04	4.00E-05	0.00036	0.00037	0.00106	9.00E-05	7.00E-05	3.00E-05	2.00E-05	0			2583050	2422541	2068612	2782454	3183635	2691356	2204585	1907807	1861455	1541411	1629221
BEL	GN1	NONE	discards	0		0	0	0	0	0	0	0	NA	NA	NA			16607	18591	19026	23556	906	10560	19527	10885	NA	NA	NA
BEL	GT1	NONE	discards	NA		NA	NA	NA	0	0	0	0	0	0	0			NA	NA	NA	NA	26676	16200	7416	21600	30600	34086	34684
BEL	TR1	NONE	discards	NA		NA	NA	NA	NA	NA	NA	0	NA	NA	0			NA	NA	NA	NA	NA	NA	NA	10219	1858	4645	5795
BEL	TR2	NONE	discards	NA		0	0	0	0	0	0	1.00E-05	1.00E-05	0	1.00E-05			NA	27043	10703	23328	13756	15816	46344	132308	189285	212691	229843
ENG	BT2	CPART13B	discards	NA		NA	NA	NA	NA	NA	0	0	0	0	0			NA	NA	NA	NA	NA	NA	108485	123228	101532	144684	108269.65
SCO	BT2	NONE	discards	NA		NA	NA	NA	1.00E-05	NA	NA	NA	NA	NA	NA			NA	NA	NA	NA	9776	3055	6353	NA	NA	NA	NA
ENG	BT2	NONE	discards	0		6.00E-05	1.00E-05	3.00E-05	3.00E-05	7.00E-05	1.00E-05	1.00E-05	0	1.00E-05	0			833384	671323	423730	359264	324577	368882	295714	148793	99461	96917	90607.52
ENG	GN1	NONE	discards	0		0	0	0	0	0	0	0	0	0	0			4498	3373	219	2529	1699	4957	12756	25620	25787	10339	3563
ENG	GT1	NONE	discards	0		0	0	0	0	0	0	0	0	0	0			11295	8742	9183	6081	7708	9580	5968	8324	8075	8332	7694
ENG	LL1	CPART13B	discards	NA		NA	NA	NA	NA	NA	NA	NA	NA	0	NA			NA	NA	NA	NA	NA	NA	NA	30899	25183	24565	27489
ENG	LL1	NONE	discards	0		0	0	0	0	0	0	NA	NA	NA	NA			44603	31882	39988	40165	37923	39699	40081	15397	13022	11097	12344
ENG	TR1	CPART13C	discards	NA		NA	NA	NA	NA	NA	0	0	0	0	0			NA	NA	NA	NA	NA	NA	4350	2226	11276	1229	2445.6
ENG	TR1	NONE	discards	0		0	0	NA	0	0	NA	NA	NA	NA	NA			31738	473	1306	788	268	4154	NA	NA	NA	NA	NA
ENG	TR2	CPART13B	discards	NA		NA	NA	NA	NA	NA	0	0	1.00E-05	0	0			NA	NA	NA	NA	NA	NA	87339	281244	301325	404526	363919.12
ENG	TR2	CPART13C	discards	NA		NA	NA	NA	NA	NA	8.00E-05	0	2.00E-05	0	0			NA	NA	NA	NA	NA	NA	193078	89159	73206	82494	100380
ENG	TR2	NONE	discards	0		0	0	0	0	0	NA	NA	NA	NA	NA			245225	271549	249748	184677	148256	165497	NA	NA	NA	NA	NA
ENG	TR3	NONE	discards	0	NA	NA	NA	0	NA	NA	NA	NA	NA	NA	NA			87	NA	NA	NA	252	NA	NA	NA	NA	NA	NA
FRA	BT2	NONE	discards	0		2.00E-05	0	2.00E-05	3.00E-05	3.00E-05	1.00E-05	0	0	0	0			1118375	1278065	919129	1258094	1135160	1106661	1106661	570711	542158	675860	529294.83
FRA	GN1	NONE	discards	0		0	0	0	0	0	0	0	0	0	0			563990	341495	243018	301125	386493	150995	150995	98661	45185	109662	98839.5
FRA	GT1	NONE	discards	0		0	0	0	0	0	0	5.00E-05	0.00015	5.00E-05	1.00E-05			2553851	2632950	3308229	3681721	3588824	2611489	2607735	1796377	1839296	1771276	1816223.83
FRA	LL1	NONE	discards	0		0	0	0	0	0	0	0	0	0	0			144804	163370	97311	114742	162573	116680	116680	118214	86512	69920	97799
FRA	TR1	NONE	discards	0		0	0	0	0	0	0	4.00E-05	0	2.00E-05	1.00E-05			138153	49849	60402	49633	224000	73652	73652	91341	113909	53370	119493.24
FRA	TR2	CPART13B	discards	NA		NA	NA	NA	NA	NA	NA	NA	NA	0	0			NA	NA	NA	NA	NA	NA	NA	NA	NA	289041	314664.84
FRA	TR2	NONE	discards	0		0	0	0	0	6.00E-05	0	0.00177	0.00027	0.00045	0.00081			12192837	12929692	11713996	13485158	13060035	10070068	9834906	6980814	6766474	6300774	5578182.08
FRA	TR3	NONE	discards	0		0	0	NA	NA	0	0	1.00E-05	0	0	0			76197	79758	99705	114293	138596	65643	64323	134347	122925	92978	80846.49
GBJ	BT2	NONE	discards	0		0	0	NA	NA	NA	NA	NA	NA	NA	NA			5180	14375	10346	NA	NA	NA	NA	NA	NA	NA	NA
GBJ	TR2	CPART13B	discards	NA		NA	NA	NA	NA	NA	0	NA	NA	NA	NA			NA	NA	NA	NA	NA	NA	7480	NA	NA	NA	NA
GBJ	TR2	NONE	discards	0		0	0	0	0	0	NA	NA	NA	NA	NA			27897	20201	23483	10560	13420	9680	NA	NA	NA	NA	NA
NED	BT2	NONE	discards	NA		0	NA	0	NA	NA	0	NA	NA	NA	NA			NA	5147	NA	4796	NA	NA	1471	NA	663	NA	NA
NED	TR1	NONE	discards	0	NA	NA	NA	NA	NA	NA	NA	NA	0	NA	0			5083	4062	NA	NA	NA	NA	5888	4981	3472	NA	4000
NED	TR2	NONE	discards	0		0	0	0	0	0	0	0.00014	4.00E-05	4.00E-05	4.00E-05			152407	316376	344814	287224	434839	625656	602354	701538	608347	706896	872099
SCO	TR1	CPART13C	discards	NA		NA	NA	NA	NA	NA	NA	NA	NA	NA	0			NA	NA	NA	NA	NA	NA	NA	NA	1292	NA	8779.35
SCO	TR2	CPART13B	discards	NA		NA	NA	NA	NA	NA	1.00E-05	0	0	NA	NA			NA	NA	NA	NA	NA	NA	66292	250268	158225	90437	NA
SCO	TR2	CPART13C	discards	NA		NA	NA	NA	NA	NA	3.00E-05	NA	0	NA	0			NA	NA	NA	NA	NA	NA	264567	NA	67063	52632	57000
SCO	TR2	NONE	discards	0	NA		NA	0	0	0	NA	NA	NA	NA	NA			12405	NA	NA	116011	209124	340147	NA	NA	NA	NA	NA
Sum	NA	NA	NA	0		0.00028	5.00E-05	0.00041	0.00044	0.00122	0.00023	0.0021	0.00053	0.00059	0.00088	NA	NA	20761666	21290857	19642948	22846199	23108496	18504005	17935000	13554961	13097586	12789862	12227424.1
(Sum of Fpars)/estimated F	NA	NA	NA	0		3.00E-04	1.00E-04	6.00E-04	7.00E-04	0.0019	4.00E-04	0.0035	0.001	0.0013	0.0022	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

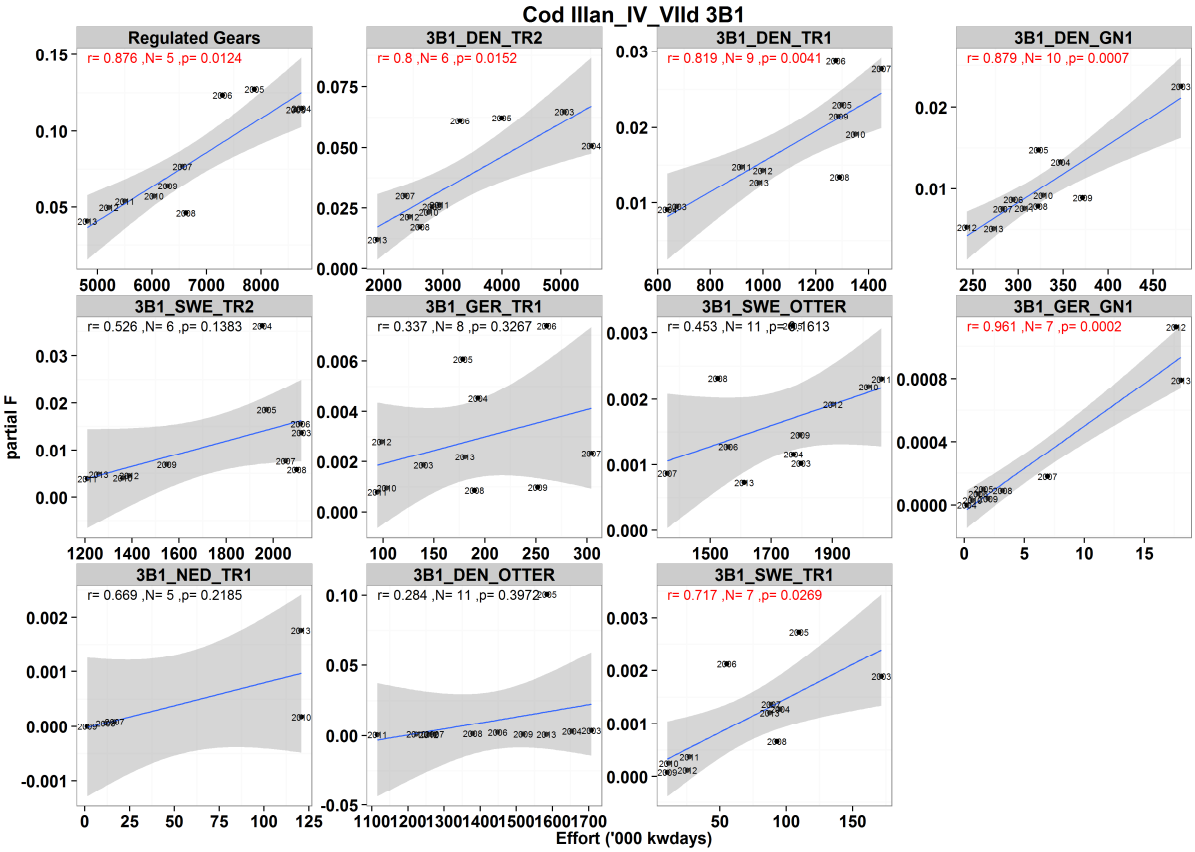


Fig. 5.3.10.2. Cod Partial fishing mortality (based on harvest rate estimates) against effort (kWd) in area 3b1 (Skagerrak) for all regulated gears combined, and the major fisheries individually. Ten metiers with highest catch are shown where catch >1% of total for the regulated area, ranked top left to bottom right. Data 2003-2013 aggregated across special conditions. r value shows linear model fit (grey 95% confidence interval), with p-value (significant relationships at 0.05 level shown in red; N and p value adjusted for autocorrelation.

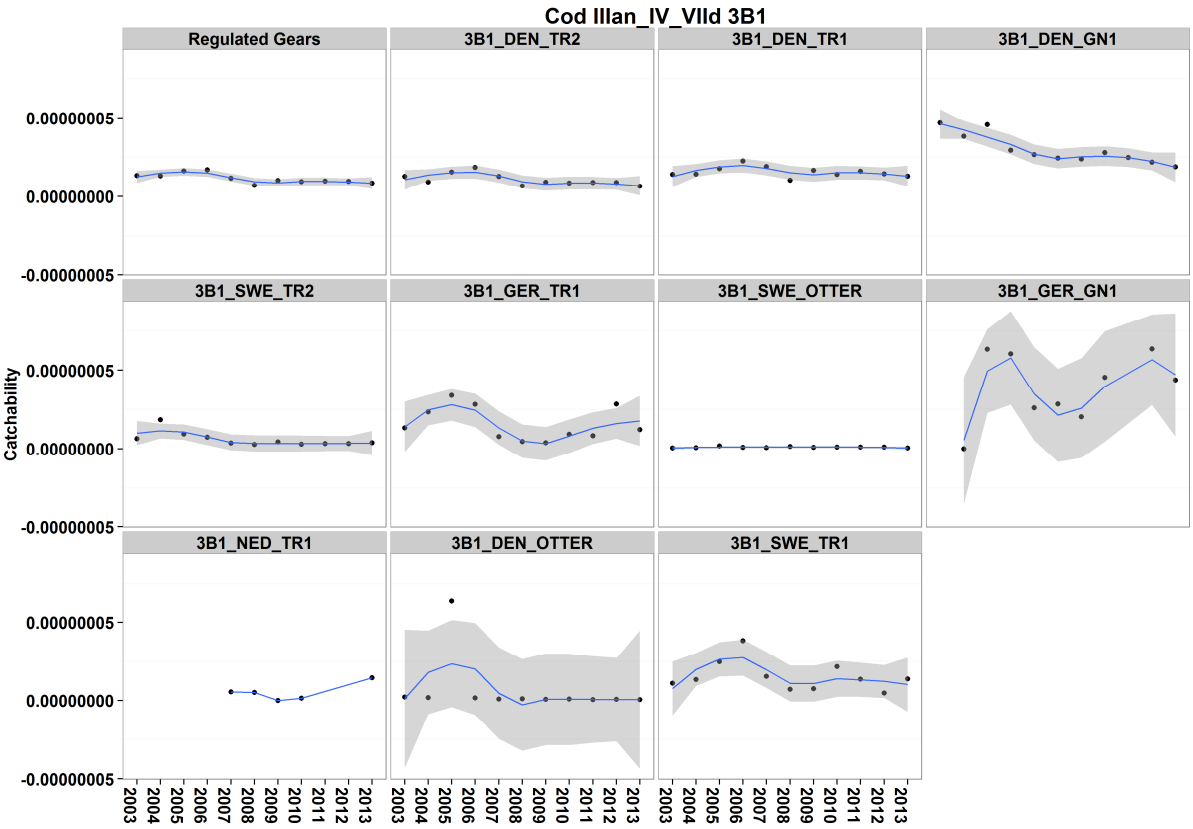


Figure 5.3.10.2.1. cod catchability estimates in 3b1 for all regulated gears and the major fisheries individually. Catchability estimated as (pF/kw days) with the blue line indicating a local regression smoother, the grey area 95% confidence limits.

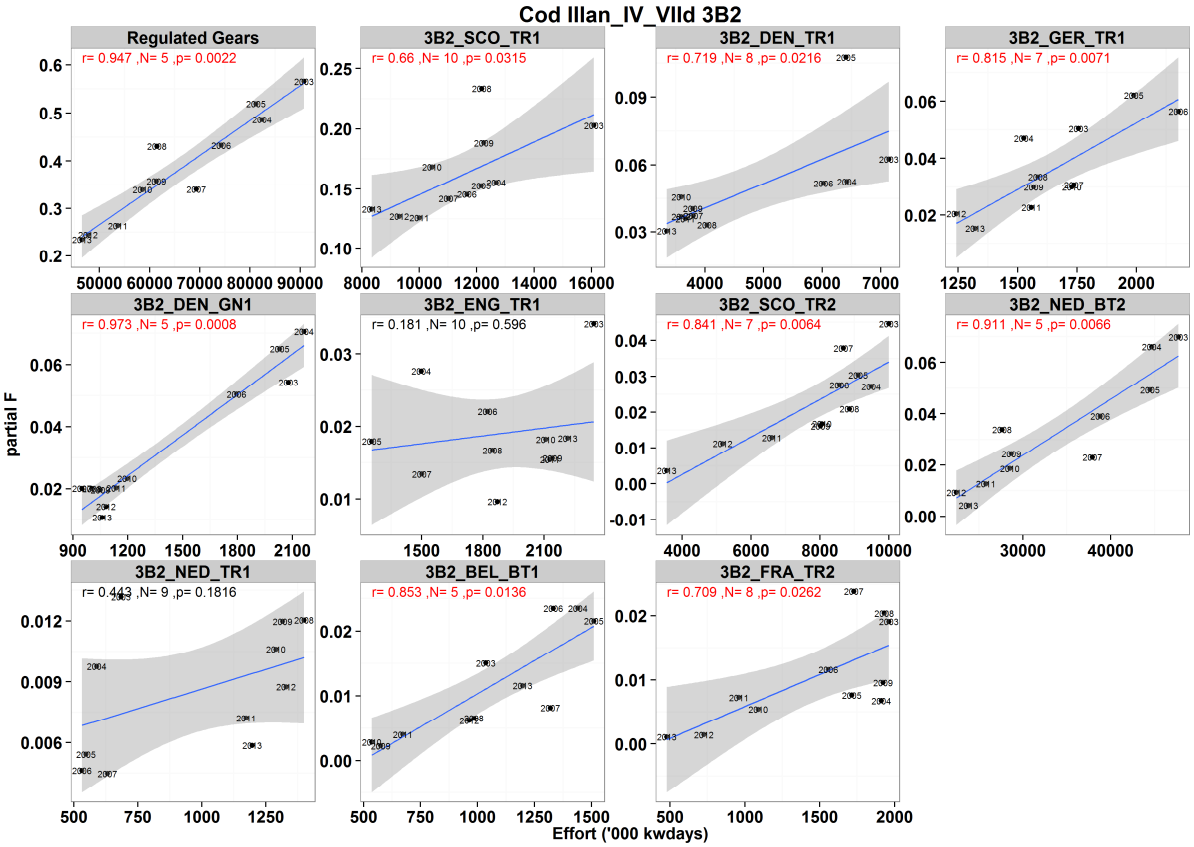


Fig. 5.3.10.3 Cod. Partial fishing mortality (based on harvest rate estimates) against effort (kWd) in area 3b2 (North Sea, 2EU) for all regulated gears combined, and the major fisheries individually. Ten metiers with highest catch are shown where catch >1% of total for the regulated area, ranked top left to bottom right. Data 2003-2013 aggregated across special conditions. r value shows linear model fit (grey 95% confidence interval), with p-value (significant relationships at 0.05 level shown in red; N and p values adjusted for autocorrelation).

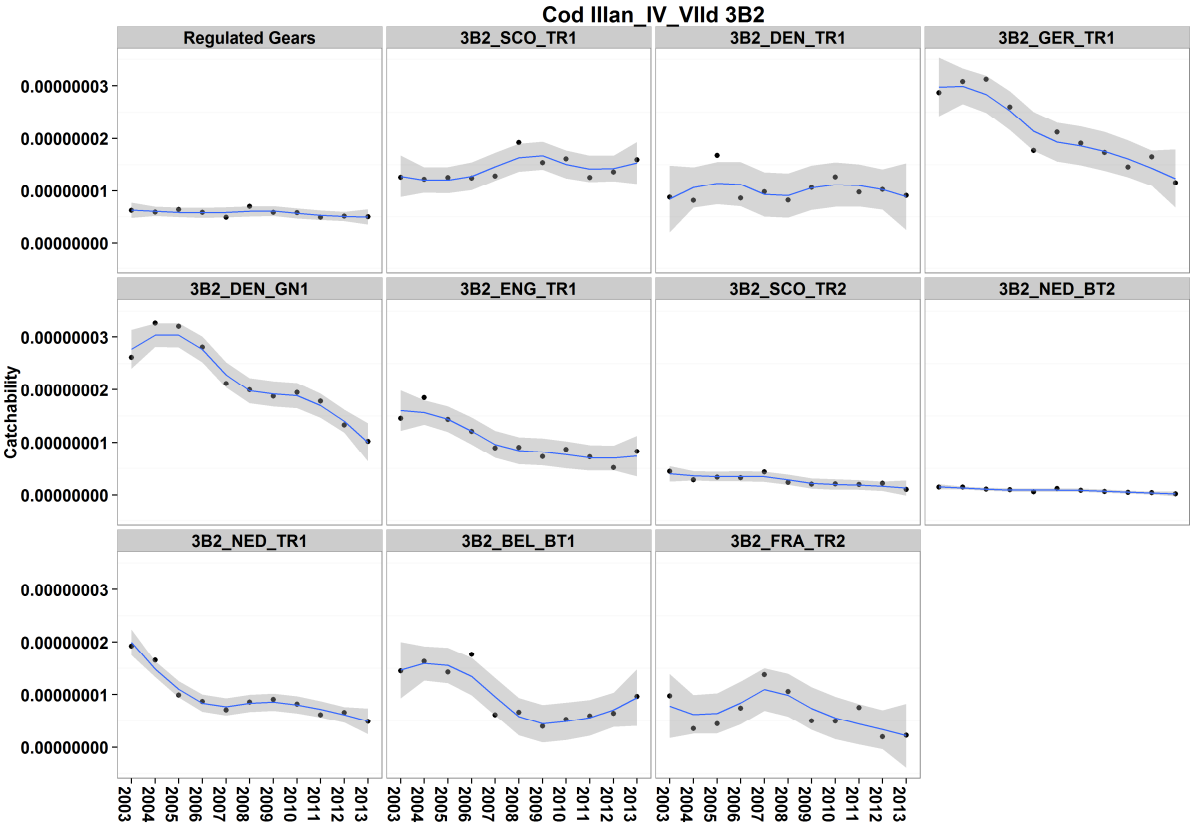


Figure 5.3.10.3.1 cod catchability estimates in 3b2 for all regulated gears and the major fisheries individually. Catchability estimated as (pF/kw days) with the blue line indicating a local regression smoother, the grey area 95% confidence limits.

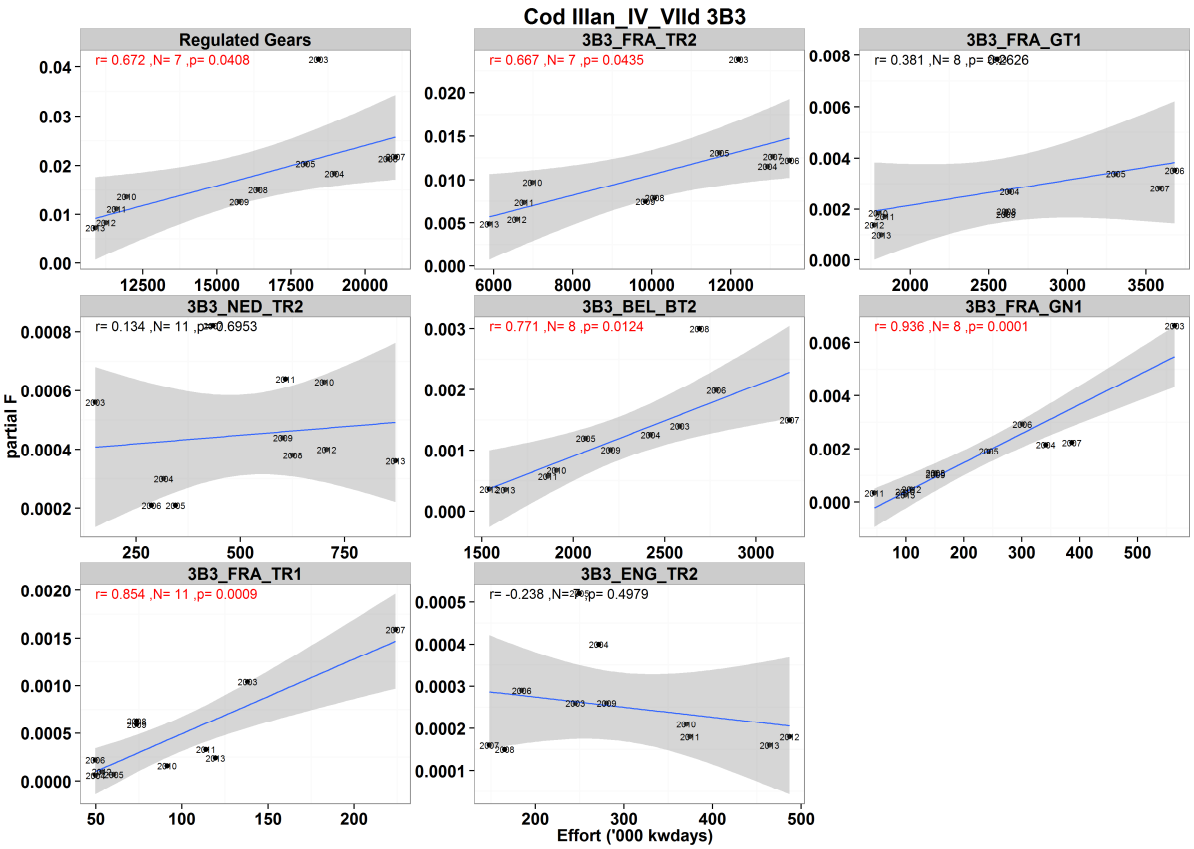


Fig. 5.3.10.4: Cod. Partial fishing mortality (based on harvest rate estimates) against effort (kWd) in area 3b3 (Eastern English Channel) for all regulated gears combined, and the major fisheries individually. Ten metiers with highest catch are shown where catch >1% of total for the regulated area, ranked top left to bottom right. Data 2003-2013 aggregated across special conditions. r value shows linear model fit (grey 95% confidence interval), with p-value (significant relationships at 0.05 level shown in red; N and p values adjusted for autocorrelation).

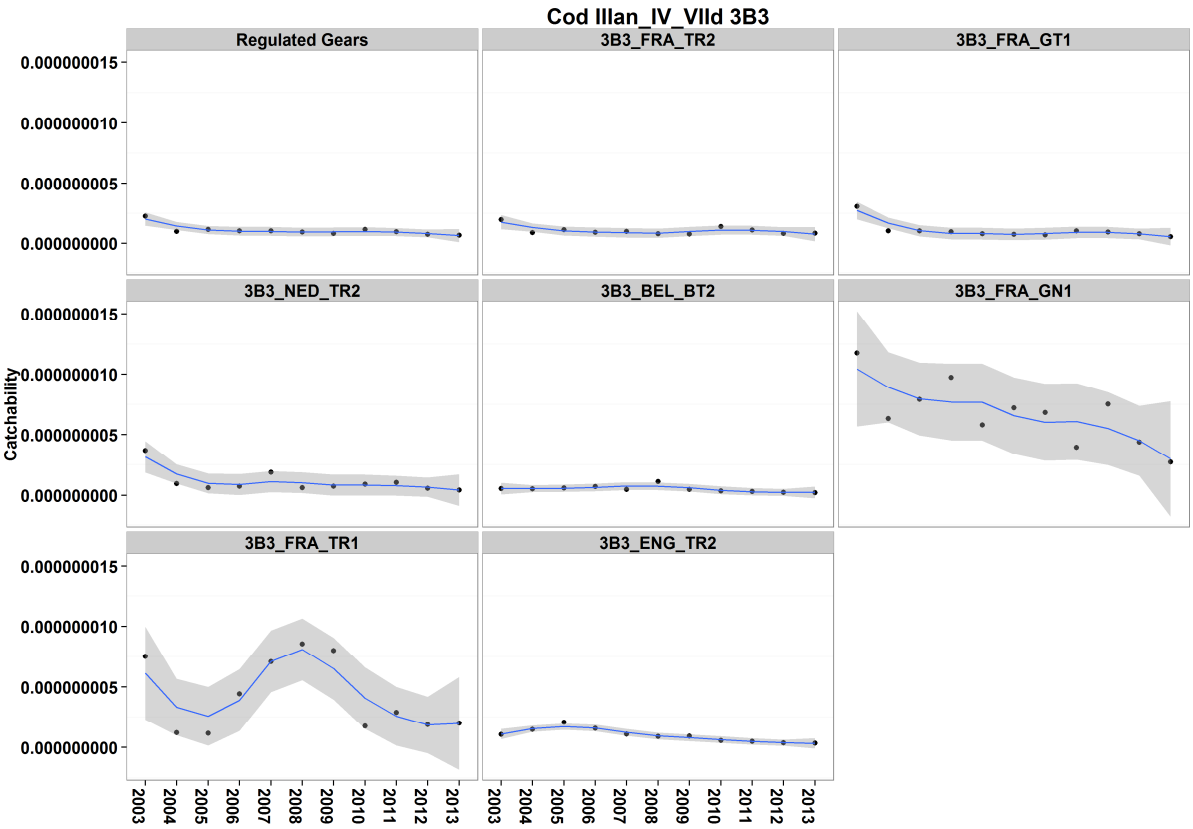


Figure 5.3.10.4.1 Cod catchability estimates in 3b3 for all regulated gears and the major fisheries individually. Catchability estimated as (pF/kw days) with the blue line indicating a local regression smoother, the grey area 95% confidence limits.

Table 5.3.10.10 **Plaice** in area **3b2**. The left part of the table lists estimated F trajectories from the management plan and the ICES 2014 plaice assessment, as well as partial Fs for **catches** of fisheries using regulated gears (in the North Sea). The right part of the table lists the respective trends in fishing effort (kW days at sea). Cod plan article 13 assignments apply since 2009 or 2010, as interpreted from the background documents of national declarations *). A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

From 2006 F reductions of 10 percent from previous year until F<=0.3 (Fmsy=0.25)																														
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013			2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
F plan	NA	NA	NA	NA	NA	NA	0.39	0.351	0.316	0.3	0.3	0.3	0.3	0.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
reduction F p	NA	NA	NA	NA	NA	NA	NA	-0.1	-0.1	-0.05	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
F estimated				0.61	0.48	0.4	0.39	0.33	0.26	0.24	0.22	0.21	0.24	0.21		Effort estima	124885533	116168546	112568095	104198066	94474459	83477476	81953233	77275306	69096526	61480063	61071579.8			
NA	NA	NA	NA	NA	NA	NA	NA	-0.15	-0.21	-0.08	-0.08	-0.05	0.14	-0.12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fpar																EFFORT														
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013		kW days at s	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
BEL	BT1	NONE	catches	0.0044	0.00541	0.00388	0.00521	0.00754	0.00359	0.00231	0.00195	0.00316	0.0045	0.0066			1036595	1439951	1509759	1333012	1320169	984056	575501	535636	671368	963867	1198066			
BEL	BT2	NONE	catches	0.02772	0.01394	0.00797	0.00617	0.00598	0.00588	0.00618	0.00666	0.00619	0.00503	0.00593			4241216	4294884	3884007	3418751	2707991	3536979	3327143	2480357	1742532	1269319	1178340			
BEL	GN1	NONE	catches	3.00E-05	2.00E-05	0.00025	1.00E-05	3.00E-05	1.00E-05	1.00E-05	1.00E-05	2.00E-05	1.00E-05	0			111613	152642	148827	127951	128626	158409	161734	97609	95383	45103	36531			
BEL	GT1	NONE	catches	NA	NA	NA	NA	1.00E-05	0	0	0	0	0	0			NA	NA	NA	NA	15402	18000	5014	19041	18155	25216	12765			
BEL	LL1	NONE	catches	NA	NA	NA	NA	NA	NA	NA	0	NA	0	NA			NA	NA	NA	NA	NA	1768	NA	1660	128	786	NA			
BEL	TR1	NONE	catches	NA	NA	NA	NA	0.00058	0.00052	0.00046	0.00035	0.00051	0.00069	0.00049			NA	1989	NA	NA	161520	201379	220428	212429	128701	183682	145247			
BEL	TR2	NONE	catches	NA	0.00156	0.00105	0.0014	0.00104	0.00065	0.00061	0.00053	0.00582	0.00161	0.00223			NA	519343	343840	366940	298814	425374	506865	476033	435961	484371	467533			
BEL	TR3	NONE	catches	NA	NA	NA	NA	NA	NA	NA	0	NA	NA	NA			NA	NA	NA	NA	NA	663	NA	1899	NA	1175	6734			
DEN	BT1	NONE	catches	0.00845	0.00657	0.00682	0.00472	0.00449	0.00173	0.00164	0.0019	0.00217	0.0017	0.00134			1122195	887830	996227	511642	527282	370939	366679	513056	373757	317294	288845.14			
DEN	BT2	NONE	catches	0.00092	6.00E-05	0.00081	0.00046	1.00E-04	4.00E-05	0.00055	NA	NA	NA	4.00E-05			89457	38279	62036	42447	1390	2894	49163	NA	440	242	5884			
DEN	GN1	NONE	catches	0.01797	0.01101	0.07095	0.00836	0.00461	0.0027	0.00288	0.00322	0.00275	0.00164	0.00182			2077492	2164307	2031057	1795453	949658	1003603	1050057	1195617	1136118	1080149	1059194.75			
DEN	GT1	NONE	catches	0.00238	0.00313	0.0144	0.0035	0.00209	0.00083	0.00205	0.00138	0.00195	0.00343	0.00525			138641	244626	237800	175339	98614	100902	158205	130662	182841	321220	483287			
DEN	LL1	NONE	catches	0	4.00E-05	0	0	0	0	0	0	0	NA	NA			105319	79773	41626	42159	15924	25347	28769	45576	29388	21089	23908			
DEN	TR1	NONE	catches	0.0202	0.02195	0.01851	0.02361	0.01629	0.01616	0.01218	0.01246	0.01553	0.01559	0.01548			7137074	6422756	6405176	6020308	3801069	4034203	3793148	3592389	3664621	3593770	3346857.69			
DEN	TR2	NONE	catches	0.01688	0.01584	0.00775	0.00723	0.00708	0.0027	0.00096	0.00086	0.00143	6.00E-04	0.00157			2597949	2580788	1916695	1405216	1080616	706247	569359	431399	370536	312765	267597.2			
ENG	BT1	CPART13B	catches	NA	NA	NA	NA	NA	NA	NA	0.00111	0.00109	0.00217	0.00297			NA	NA	NA	NA	NA	NA	NA	202685	169873	384590	575557.5			
DEN	TR3	NONE	catches	9.00E-05	3.00E-05	7.00E-05	4.00E-05	2.00E-05	0	0	NA	NA	1.00E-05	2.00E-05			3084554	3026636	2373302	1761200	799803	916558	577813	1063007	336257	477168	824551			
ENG	BT1	NONE	catches	0.00612	0.00375	0.00296	0.00651	0.00248	0.00169	0.00186	NA	NA	0.00022	NA			1060809	671130	618160	1321240	305837	228530	265710	NA	NA	40284	NA			
ENG	BT2	CPART13B	catches	NA	NA	NA	NA	NA	NA	1.00E-04	0.02767	0.01423	0.01337	0.02018			NA	NA	NA	NA	NA	NA	47771	2863860	2644958	2412375	2853225.5			
ENG	BT2	NONE	catches	0.02718	0.03344	0.03069	0.01774	0.02854	0.01808	0.02395	0.00329	0.00046	0.00052	0			2739407	3559560	4046341	2974409	3251512	1975399	2444807	401247	96356	79036	28485.4			
ENG	GN1	NONE	catches	0	0	3.00E-05	0	0	0	0	0	2.00E-05	1.00E-05	0			337639	359134	308275	308517	180503	70981	175602	74835	73826	61957	28671.5			
ENG	GT1	NONE	catches	0	NA	0	0	0	0	0	0	0	0	0			1092	1564	5342	11100	3291	12918	12654	17355	12003	5823	12168.66			
ENG	LL1	NONE	catches	0	NA	0	NA	NA	NA	NA	NA	NA	NA	0			102465	83137	142602	54974	15752	6164	4318	12052	6253	15449	8401.48			
ENG	TR1	CPART13B	catches	NA	NA	NA	NA	NA	NA	0.00444	0.0049	0.00492	0.00866	0.00956			NA	NA	NA	NA	NA	NA	898933	964206	874021	939503	1089822.3			
ENG	TR1	CPART13C	catches	NA	NA	NA	NA	NA	NA	0.00229	0.00083	0.00156	0.00161	0.00046			NA	NA	NA	NA	NA	NA	1242445	1144923	1254762	931671	1127181.16			
ENG	TR1	NONE	catches	0.00348	0.00291	0.00091	0.00341	0.00296	0.00368	NA	NA	NA	NA	1.00E-05			2343719	1497618	1254880	1823891	1501499	1846925	NA	NA	NA	NA	NA			
ENG	TR2	CPART13B	catches	NA	NA	NA	NA	NA	NA	0.00014	0.00376	0.00623	0.00593	0.0028			NA	NA	NA	NA	NA	NA	260311	873808	721452	865045	542145.84			
ENG	TR2	CPART13C	catches	NA	NA	NA	NA	NA	NA	0.00328	0.00055	0.00182	0.00046	0.00011			NA	NA	NA	NA	NA	NA	1376367	482080	524579	267661	236427.7			
ENG	TR2	NONE	catches	0.00538	0.00425	0.00343	0.0031	0.00401	0.00486	NA	NA	NA	NA	NA			1853471	1705154	1937849	1707774	1621394	1794132	NA	NA	NA	NA	NA			
GBJ	TR2	NONE	catches	NA	NA	0	NA	NA	NA	NA	NA	NA	NA	NA			NA	NA	660	NA	NA	NA	NA	NA	NA	NA	NA			
ENG	TR3	NONE	catches	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	0			1988	7840	3315	6360	1220	492	82	718	621	246	216			
FRA	BT2	NONE	catches	0.00073	0.00033	0.00013	9.00E-05	0.00022	0.00017	0.00016	9.00E-05	0.00017	0.00018	0.00015			96232	94514	75129	66203	103453	88053	88053	40118	67545	57044	56091			
FRA	GN1	NONE	catches	2.00E-05	0.00013	0.00037	0	2.00E-05	1.00E-05	1.00E-05	0	5.00E-05	0	0			58454	64809	46058	31231	61545	47746	46493	2149	7803	3322	1536			
FRA	GT1	NONE	catches	0.00039	3.00E-04	0.00178	0.00034	0.00028	0.00021	0.00023	0.00013	0.00031	0.00026	0.00027			830136	793053	813190	1785801	1703889	1010253	1010253	634781	690428	636164	599605.33			
FRA	TR1	NONE	catches	0	0	NA	NA	0	0	0	0	0	NA	0			3347063	2299125	1901534	2675348	2418190	2714146	2622538	1913401	1727371	324	20972.33			
FRA	TR2	NONE	catches	0.00083	0.00059	3.00E-04	0.00018	0.00064	0.00028	0.00015	0.00027	0.00119	0.00014	8.00E-05			1961970	1911744	1713917	1558413	1727617	1930459	1924156	1089380	960559	725367	478490.58			
FRA	TR3	NONE	catches	NA	NA	NA	NA	NA	NA	NA	0	0	NA	NA			NA	1753	7121	1319	NA	2184	2184	13827	2210	1250	84.5			

Table 5.3.10.6 continued.

GER	BT1	NONE	catches	0.00017	0.00012	1.00E-05	0.00098	0.00043	0.00015	NA	NA	NA	NA	0.00059			47736	29712	2128	53986	30297	16790	NA	884	1535	2793	65906						
GER	BT2	NONE	catches	0.01378	0.01951	0.01422	0.01071	0.00635	0.00401	0.00608	0.0075	0.00451	0.0048	0.00452			1669870	2060092	2212397	1927398	1590823	1464163	1666322	1801775	1242171	1071896	1290574						
GER	GN1	NONE	catches	0.00011	8.00E-05	0.00051	5.00E-05	0.00015	3.00E-05	5.00E-05	7.00E-05	5.00E-05	3.00E-05	1.00E-04			191424	163463	271624	235427	145714	278008	233164	275364	225797	269836	241938						
GER	GT1	NONE	catches	NA	NA	NA	NA	NA	NA	0	0	0	NA	NA			NA	NA	NA	1547	NA	NA	15444	1188	924	NA	NA						
GER	TR1	CPART13B	catches	NA	NA	NA	NA	NA	NA	0	4.00E-05	9.00E-05	4.00E-05	3.00E-05			NA	NA	NA	NA	NA	NA	808679	898007	815730	747693	722448						
GER	TR1	NONE	catches	0.00154	0.00088	0.00093	0.00464	0.00221	0.004	0.00125	0.00158	0.00157	0.00207	0.00272			1756193	1526666	1988209	2176131	1736694	1585192	759368	829604	741965	495051	598769						
GER	TR2	CPART13B	catches	NA	NA	NA	NA	NA	NA	3.00E-05	0.00062	0.00077	0.00045	0.00059			NA	NA	NA	NA	NA	NA	2420	39820	31240	14740	20680						
GER	TR2	NONE	catches	0.01863	0.01189	0.00813	0.00752	0.00809	0.00384	0.00292	0.003	0.03577	0.0035	0.00553			1013535	893439	704404	771597	680681	457259	470754	420345	408157	320809	315656						
GER	TR3	NONE	catches	0	NA	NA	3.00E-05	NA	NA	NA	NA	NA	NA	NA			1028	NA	NA	772	884	4410	426	NA	NA	NA	184						
IRL	TR2	NONE	catches	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA			54	884	NA	NA	NA	NA	NA	NA	NA	NA	NA						
NED	BT1	NONE	catches	0.00156	0.00151	0.00223	0.00597	0.00238	0.00147	0.00193	0.00119	0.00121	0.00563	0.00569			575801	700747	719292	1528652	720068	370417	412420	378796	308516	1090258	1202666						
NED	BT2	NONE	catches	0.26881	0.2117	0.16358	0.15782	0.15381	0.1097	0.11904	0.0907	0.08402	0.09358	0.08728			47724234	44669317	44478122	38823660	37931313	27646215	28696410	28510104	25776297	22428296	23823379						
NED	GN1	NONE	catches	7.00E-05	0.00011	0	1.00E-05	0	0	0	0	1.00E-05	0	0			460895	416025	387945	511580	521697	507733	419797	357091	316070	295035	233663						
NED	GT1	NONE	catches	NA	NA	NA	NA	NA	NA	1.00E-05	4.00E-05	8.00E-05	0	NA			NA	NA	NA	NA	NA	740	26917	37399	21431	29054	7442						
NED	TR1	NONE	catches	0.00089	0.00067	8.00E-04	0.00107	0.00099	0.00395	0.00399	0.00344	0.00464	0.01048	0.00747			684700	589170	547564	532260	631492	1400068	1316055	1290080	1173220	1329299	1196661						
NED	TR2	NONE	catches	0.00761	0.00547	0.00414	0.00615	0.00864	0.00785	0.00383	0.00388	0.04586	0.00442	0.00443			1932081	1496720	1298918	1224916	1384658	1853682	1334665	1231860	1313554	1277297	1181714						
NED	TR3	NONE	catches	NA	NA	1.00E-05	NA	0	NA	NA	NA	0	NA	0			59360	42894	43261	20649	20589	4038	274	31973	23268	25897	50615						
NIR	BT1	NONE	catches	0.00436	0.00264	1.00E-04	NA	NA	NA	NA	NA	NA	NA	NA			965239	543305	36825	NA	NA	NA	NA	NA	NA	NA	NA						
NIR	BT2	NONE	catches	0.00023	0.00049	2.00E-04	NA	NA	NA	NA	NA	NA	NA	NA			20350	47517	16785	NA	NA	NA	NA	NA	NA	NA	NA						
NIR	TR1	CPART13A	catches	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	NA			NA	NA	NA	NA	NA	NA	NA	NA	NA	2672	4310						
NIR	TR1	CPART13B	catches	NA	NA	NA	NA	NA	NA	1.00E-05	0	0	0	NA			NA	NA	NA	NA	NA	NA	41944	23326	33246	16573	7062						
NIR	TR1	CPART13C	catches	NA	NA	NA	NA	NA	NA	0	0	NA	NA	0			NA	NA	NA	NA	NA	NA	14196	6034	NA	2781	16050						
NIR	TR1	NONE	catches	NA	0	1.00E-05	0	1.00E-05	1.00E-05	NA	NA	NA	NA	NA			NA	16948	70710	51951	61460	49104	NA	NA	NA	NA	NA						
NIR	TR2	CPART13A	catches	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	1.00E-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	90338	245268.4						
NIR	TR2	CPART13B	catches	NA	NA	NA	NA	NA	NA	0	1.00E-05	3.00E-05	1.00E-05	NA			NA	NA	NA	NA	NA	NA	65544	161981	207697	109647	NA						
NIR	TR2	CPART13C	catches	NA	NA	NA	NA	NA	NA	0.00012	2.00E-05	1.00E-05	1.00E-05	6.00E-05			NA	NA	NA	NA	NA	NA	320087	236516	70443	25672	50085						
NIR	TR2	NONE	catches	0	0	3.00E-05	8.00E-05	0.00014	5.00E-05	NA	NA	NA	NA	NA			6784	12440	221904	532885	758972	409182	NA	NA	NA	NA	NA						
SCO	BT1	NONE	catches	0.00421	0.00247	0.00212	0.00364	0.00209	0.00047	0.00046	NA	NA	NA	NA			866665	694716	730810	598616	349914	68568	53082	NA	NA	NA	NA						
SCO	BT2	NONE	catches	0.0388	0.04764	0.03105	0.02231	0.02338	0.01302	0.00771	0.00195	NA	0.00029	0.00093			3765518	4608817	4185262	3108933	2790115	1351720	554376	144306	NA	68262	217190						
SCO	GN1	NONE	catches	0	NA	NA	0	NA	NA	NA	NA	NA	NA	NA			196852	197407	165644	293823	320785	417076	376332	440579	607650	569749	422531.6						
SCO	TR1	CPART13B	catches	NA	NA	NA	NA	NA	NA	0.00125	0.00314	0.00243	1.00E-04	NA			NA	NA	NA	NA	NA	NA	692932	955808	810706	36937	NA						
SCO	TR1	CPART13C	catches	NA	NA	NA	NA	NA	NA	0.00672	0.00332	0.00413	0.00506	0.00845			NA	NA	NA	NA	NA	NA	11552644	9486824	9185531	9265940	8340695.27						
SCO	TR1	NONE	catches	0.00467	0.004	0.00352	0.00486	0.0037	0.00552	NA	NA	NA	NA	NA			16079389	12684328	12158295	11660764	11022982	12176292	NA	NA	NA	NA	NA						
SCO	TR2	CPART13B	catches	NA	NA	NA	NA	NA	NA	0.00043	0.00042	0.00107	0.00027	NA			NA	NA	NA	NA	NA	NA	4219929	7467356	5277096	287446	NA						
SCO	TR2	CPART13C	catches	NA	NA	NA	NA	NA	NA	0.00235	0.00039	0.00017	0.00402	0.001			NA	NA	NA	NA	NA	NA	3796988	490013	1285425	4861297	3539873.36						
SCO	TR2	NONE	catches	0.00309	0.00191	0.00144	0.00143	0.00222	0.00253	NA	NA	NA	NA	NA			9998937	9485974	9108232	8561812	8678139	8855742	NA	NA	NA	NA	NA						
SCO	TR3	NONE	catches	NA	NA	0	NA	NA	NA	NA	NA	NA	0	0			6377	5460	2356	116	11896	NA	33117	27524	NA	20706	1566.6						
SWE	LL1	NONE	catches	NA	NA	NA	NA	NA	0	0	0	0	0	NA			NA	1056	4239	15026	11020	10928	11352	6600	8184	5016	NA						
SWE	TR1	NONE	catches	1.00E-05	1.00E-05	0	0	2.00E-05	6.00E-05	0	1.00E-05	0	1.00E-05	1.00E-05			381696	375455	387252	237269	269171	333387	245040	196354	189867	190816	270229						
SWE	TR2	NONE	catches	NA	NA	0	0	0	0	NA	0	NA	NA	NA			4265	2055	1192	1298	2515	1059	NA	0	NA	3930	NA						
Sum	NA	NA	NA	0.51171	0.43636	0.40609	0.31935	0.30362	0.22045	0.22462	0.19324	0.258	0.20311	0.20677	NA	NA	124885533	116168546	112568095	104198066	94474459	83477476	81953233	77275306	69096526	61480063	61071579.8						
(Sum of Fpars)/estimated F	NA	NA	NA	0.8389	0.9091	1.0152	0.8188	0.9201	0.8479	0.9359	0.8784	1.2286	0.8463	0.9846	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA						

Table 5.3.10.11 **Plaice** in area **3b2**. The left part of the table lists estimated F trajectories from the management plan and the ICES 2014 plaice assessment, as well as partial Fs for **landings** of fisheries using regulated gears (in the North Sea). The right part of the table lists the respective trends in fishing effort (kW days at sea). Cod plan article 13 assignments apply since 2009 or 2010, as interpreted from the background documents of national declarations *). A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

From 2006 F reductions of 10 percent from previous year until F<=0.3 (Fmsy=0.25)																														
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013			2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
F plan	NA	NA	NA	NA	NA	NA	0.39	0.351	0.316	0.3	0.3	0.3	0.3	0.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
reduction F p	NA	NA	NA	NA	NA	NA	NA	-0.1	-0.1	-0.05	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
F estimated				0.61	0.48	0.4	0.39	0.33	0.26	0.24	0.22	0.21	0.24	0.21		Effort estima	124885533	116168546	112568095	104198066	94474459	83477476	81953233	77275306	69096526	61480063	61071579.8			
NA	NA	NA	NA	NA	NA	NA	NA	-0.15	-0.21	-0.08	-0.08	-0.05	0.14	-0.12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fpar																EFFORT														
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013		kW days at s	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
GBJ	TR2	NONE	landings	NA	NA	0	NA	NA	NA	NA	NA	NA	NA	NA			NA	NA	660	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
BEL	BT1	NONE	landings	0.00431	0.00541	0.00388	0.00509	0.00754	0.00348	0.00231	0.00195	0.00316	0.0045	0.0065			1036595	1439951	1509759	1333012	1320169	984056	575501	535636	671368	963867	1198066			
BEL	BT2	NONE	landings	0.01285	0.01074	0.00692	0.00506	0.00514	0.00453	0.0047	0.00455	0.00439	0.00289	0.00335			4241216	4294884	3884007	3418751	2707991	3536979	3327143	2480357	1742532	1269319	1178340			
BEL	GN1	NONE	landings	3.00E-05	1.00E-05	1.00E-05	1.00E-05	1.00E-05	1.00E-05	1.00E-05	1.00E-05	2.00E-05	1.00E-05	0			111613	152642	148827	127951	128626	158409	161734	97609	95383	45103	36531			
BEL	GT1	NONE	landings	NA	NA	NA	NA	1.00E-05	0	0	0	0	0	0			NA	NA	NA	NA	15402	18000	5014	19041	18155	25216	12765			
BEL	LL1	NONE	landings	NA	NA	NA	NA	NA	NA	NA	0	NA	0	NA			NA	NA	NA	NA	NA	1768	NA	1660	128	786	NA			
BEL	TR1	NONE	landings	NA	NA	NA	NA	0.00056	5.00E-04	0.00046	0.00035	5.00E-04	0.00058	0.00046			NA	1989	NA	NA	161520	201379	220428	212429	128701	183682	145247			
BEL	TR2	NONE	landings	NA	0.00093	0.00066	0.00075	0.00047	0.00038	0.00051	0.00044	0.00062	0.00105	0.00118			NA	519343	343840	366940	298814	425374	506865	476033	435961	484371	467533			
BEL	TR3	NONE	landings	NA	NA	NA	NA	NA	NA	NA	0	NA	NA	NA			NA	NA	NA	NA	NA	663	NA	1899	NA	1175	6734			
DEN	BT1	NONE	landings	0.00845	0.00657	0.00682	0.00464	0.00449	0.00169	0.00164	0.0019	0.00217	0.0017	0.00133			1122195	887830	996227	511642	527282	370939	366679	513056	373757	317294	288845.14			
DEN	BT2	NONE	landings	0.00092	3.00E-05	0.00038	0.00023	5.00E-05	3.00E-05	0.00029	NA	NA	NA	2.00E-05			89457	38279	62036	42447	1390	2894	49163	NA	440	242	5884			
DEN	GN1	NONE	landings	0.01735	0.01035	0.00841	0.00781	0.00381	0.00267	0.00288	0.00322	0.00275	0.00163	0.00181			2077492	2164307	2031057	1795453	949658	1003603	1050057	1195617	1136118	1080149	1059194.75			
DEN	GT1	NONE	landings	0.00238	0.00313	0.004	0.00328	0.00209	0.00083	0.00183	0.00127	0.00195	0.0034	0.00522			138641	244626	237800	175339	98614	100902	158205	130662	182841	321220	483287			
DEN	LL1	NONE	landings	0	4.00E-05	0	0	0	0	0	0	0	NA	NA			105319	79773	41626	42159	15924	25347	28769	45576	29388	21089	23908			
DEN	TR1	NONE	landings	0.0198	0.02114	0.01697	0.01896	0.01615	0.01583	0.01214	0.01244	0.01538	0.01506	0.01543			7137074	6422756	6405176	6020308	3801069	4034203	3793148	3592389	3664621	3593770	3346857.69			
DEN	TR2	NONE	landings	0.00926	0.00911	0.00471	0.00353	0.00317	0.00147	0.00092	0.00073	6.00E-04	0.00039	0.00077			2597949	2580788	1916695	1405216	1080616	706247	569359	431399	370536	312765	267597.2			
DEN	TR3	NONE	landings	8.00E-05	3.00E-05	2.00E-05	4.00E-05	2.00E-05	0	0	NA	NA	1.00E-05	2.00E-05			3084554	3026636	2373302	1761200	799803	916558	577813	1063007	336257	477168	824551			
ENG	BT1	CPART13B	landings	NA	NA	NA	NA	NA	NA	NA	0.00111	0.00109	0.00217	0.00297			NA	NA	NA	NA	NA	NA	NA	202685	169873	384590	575557.5			
ENG	BT1	NONE	landings	0.00553	0.00375	0.00296	0.00637	0.00248	0.00165	0.00186	NA	NA	0.00022	NA			1060809	671130	618160	1321240	305837	228530	265710	NA	NA	40284	NA			
ENG	BT2	CPART13B	landings	NA	NA	NA	NA	NA	NA	1.00E-04	0.0136	0.01423	0.01337	0.01349			NA	NA	NA	NA	NA	NA	47771	2863860	2644958	2412375	2853225.5			
ENG	BT2	NONE	landings	0.0145	0.01949	0.01644	0.00997	0.0155	0.00967	0.01071	0.00151	0.00028	0.00029	0			2739407	3559560	4046341	2974409	3251512	1975399	2444807	401247	96356	79036	28485.4			
ENG	GN1	NONE	landings	0	0	0	0	0	0	0	0	2.00E-05	1.00E-05	0			337639	359134	308275	308517	180503	70981	175602	74835	73826	61957	28671.5			
ENG	GT1	NONE	landings	0	NA	0	0	0	0	0	0	0	0	0			1092	1564	5342	11100	3291	12918	12654	17355	12003	5823	12168.66			
NIR	TR1	CPART13A	landings	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	NA			NA	NA	NA	NA	NA	NA	NA	NA	NA	2672	4310			
ENG	LL1	NONE	landings	0	NA	0	NA	NA	NA	NA	NA	NA	NA	0			102465	83137	142602	54974	15752	6164	4318	12052	6253	15449	8401.48			
ENG	TR2	NONE	landings	0.00273	0.00251	0.00235	0.00149	0.00205	0.00259	NA	NA	NA	NA	NA			1853471	1705154	1937849	1707774	1621394	1794132	NA	NA	NA	NA	NA			
ENG	TR1	CPART13B	landings	NA	NA	NA	NA	NA	NA	0.00335	0.0042	0.00431	0.0061	0.00776			NA	NA	NA	NA	NA	NA	898933	964206	874021	939503	1089822.3			
ENG	TR1	CPART13C	landings	NA	NA	NA	NA	NA	NA	0.00202	0.00069	0.00135	0.00119	0.00042			NA	NA	NA	NA	NA	NA	1242445	1144923	1254762	931671	1127181.16			
NIR	TR2	CPART13A	landings	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	1.00E-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	90338	245268.4			
ENG	TR1	NONE	landings	0.00202	0.00249	0.00083	0.00275	0.0026	0.00325	NA	NA	NA	NA	1.00E-05			2343719	1497618	1254880	1823891	1501499	1846925	NA	NA	NA	NA	NA			
ENG	TR2	CPART13B	landings	NA	NA	NA	NA	NA	NA	9.00E-05	0.00204	0.00159	0.00192	0.00107			NA	NA	NA	NA	NA	NA	260311	873808	721452	865045	542145.84			
ENG	TR2	CPART13C	landings	NA	NA	NA	NA	NA	NA	0.00126	0.00022	8.00E-04	8.00E-05	3.00E-05			NA	NA	NA	NA	NA	NA	1376367	482080	524579	267661	236427.7			
ENG	TR3	NONE	landings	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	0			1988	7840	3315	6360	1220	492	82	718	621	246	216			
FRA	BT2	NONE	landings	0.00034	0.00016	7.00E-05	4.00E-05	0.00013	9.00E-05	8.00E-05	4.00E-05	0.00011	8.00E-05	8.00E-05			96232	94514	75129	66203	103453	88053	88053	40118	67545	57044	56091			
FRA	GN1	NONE	landings	2.00E-05	6.00E-05	1.00E-05	0	2.00E-05	1.00E-05	1.00E-05	0	5.00E-05	0	0			58454	64809	46058	31231	61545	47746	46493	2149	7803	3322	1536			
FRA	GT1	NONE	landings	0.00039	3.00E-04	0.00027	0.00031	0.00028	0.00021	0.00018	0.00012	0.00028	0.00019	2.00E-04			830136	793053	813190	1785801	1703889	1010253	1010253	634781	690428	636164	599605.33			
FRA	TR1	NONE	landings	0	0	NA	NA	0	0	0	0	0	NA	0			3347063	2299125	1901534	2675348	2418190	2714146	2622538	1913401	1727371	324	20972.33			
FRA	TR2	NONE	landings	0.00042	0.00034	2.00E-04	9.00E-05	0.00032	0.00015	0.00013	0.00022	0.00021	8.00E-05	4.00E-05			1961970	1911744	1713917	1558413	1727617	1930459	1924156	1089380	960559	725367	478490.58			
FRA	TR3	NONE	landings	NA	NA	NA	NA	NA	NA	NA	0	0	NA	NA			NA	1753	7121	1319	NA	2184	2184	13827	2210	1250	84.5			

Table 5.3.10.11 continued

GER	BT1	NONE	landings	0.00015	0.00012	1.00E-05	0.00096	0.00043	0.00015	NA	NA	NA	NA	0.00058			47736	29712	2128	53986	30297	16790	NA	884	1535	2793	65906
GER	BT2	NONE	landings	0.00557	0.00716	0.00593	0.00374	0.00298	0.00222	0.00288	0.0031	0.00286	0.00262	0.0023			1669870	2060092	2212397	1927398	1590823	1464163	1666322	1801775	1242171	1071896	1290574
GER	GN1	NONE	landings	9.00E-05	6.00E-05	5.00E-05	5.00E-05	4.00E-05	2.00E-05	5.00E-05	7.00E-05	5.00E-05	3.00E-05	1.00E-04			191424	163463	271624	235427	145714	278008	233164	275364	225797	269836	241938
GER	GT1	NONE	landings	NA	NA	NA	NA	NA	NA	0	0	0	NA	NA			NA	NA	NA	1547	NA	NA	15444	1188	924	NA	NA
GER	TR1	CPART13B	landings	NA	NA	NA	NA	NA	NA	0	4.00E-05	8.00E-05	3.00E-05	3.00E-05			NA	NA	NA	NA	NA	NA	808679	898007	815730	747693	722448
GER	TR1	NONE	landings	0.00143	0.00083	0.00083	0.00298	0.00213	0.00372	0.00125	0.00158	0.00144	0.00179	0.00245			1756193	1526666	1988209	2176131	1736694	1585192	759368	829604	741965	495051	598769
GER	TR2	CPART13B	landings	NA	NA	NA	NA	NA	NA	2.00E-05	0.00038	0.00027	0.00018	0.00023			NA	NA	NA	NA	NA	NA	2420	39820	31240	14740	20680
GER	TR2	NONE	landings	0.00869	0.00686	0.00547	0.00391	0.00387	0.00225	0.00251	0.00249	0.00269	0.00229	0.00295			1013535	893439	704404	771597	680681	457259	470754	420345	408157	320809	315656
GER	TR3	NONE	landings	0	NA	NA	3.00E-05	NA	NA	NA	NA	NA	NA	NA			1028	NA	NA	772	884	4410	426	NA	NA	NA	184
IRL	TR2	NONE	landings	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA			54	884	NA	NA	NA	NA	NA	NA	NA	NA	NA
NED	BT1	NONE	landings	0.00141	0.00151	0.00223	0.00584	0.00238	0.00143	0.00193	0.00119	0.00121	0.00563	0.0056			575801	700747	719292	1528652	720068	370417	412420	378796	308516	1090258	1202666
NED	BT2	NONE	landings	0.12682	0.1049	0.08746	0.08217	0.08342	0.05917	0.05436	0.0475	0.04679	0.04225	0.04445			47724234	44669317	44478122	38823660	37931313	27646215	28696410	28510104	25776297	22428296	23823379
NED	GN1	NONE	landings	7.00E-05	2.00E-05	0	1.00E-05	0	0	0	0	1.00E-05	0	0			460895	416025	387945	511580	521697	507733	419797	357091	316070	295035	233663
NED	GT1	NONE	landings	NA	NA	NA	NA	NA	NA	1.00E-05	4.00E-05	7.00E-05	0	NA			NA	NA	NA	NA	NA	740	26917	37399	21431	29054	7442
NED	TR1	NONE	landings	0.00081	0.00063	0.00072	0.00082	0.00096	0.00379	0.00398	0.00344	0.00457	0.00636	0.00643			684700	589170	547564	532260	631492	1400068	1316055	1290080	1173220	1329299	1196661
NED	TR2	NONE	landings	0.00385	0.00316	0.00267	0.00324	0.00402	0.00439	0.00335	0.0032	0.00294	0.00262	0.0024			1932081	1496720	1298918	1224916	1384658	1853682	1334665	1231860	1313554	1277297	1181714
NED	TR3	NONE	landings	NA	NA	0	NA	0	NA	NA	NA	0	NA	0			59360	42894	43261	20649	20589	4038	274	31973	23268	25897	50615
NIR	BT1	NONE	landings	0.00419	0.00264	1.00E-04	NA	NA	NA	NA	NA	NA	NA	NA			965239	543305	36825	NA	NA	NA	NA	NA	NA	NA	NA
NIR	BT2	NONE	landings	0.00012	0.00034	9.00E-05	NA	NA	NA	NA	NA	NA	NA	NA			20350	47517	16785	NA	NA	NA	NA	NA	NA	NA	NA
NIR	TR1	CPART13B	landings	NA	NA	NA	NA	NA	NA	1.00E-05	0	0	0	NA			NA	NA	NA	NA	NA	NA	41944	23326	33246	16573	7062
NIR	TR1	CPART13C	landings	NA	NA	NA	NA	NA	NA	0	0	NA	NA	0			NA	NA	NA	NA	NA	NA	14196	6034	NA	2781	16050
NIR	TR1	NONE	landings	NA	0	1.00E-05	0	1.00E-05	1.00E-05	NA	NA	NA	NA	NA			NA	16948	70710	51951	61460	49104	NA	NA	NA	NA	NA
NIR	TR2	CPART13B	landings	NA	NA	NA	NA	NA	NA	0	1.00E-05	1.00E-05	1.00E-05	NA			NA	NA	NA	NA	NA	NA	65544	161981	207697	109647	NA
NIR	TR2	CPART13C	landings	NA	NA	NA	NA	NA	NA	3.00E-05	1.00E-05	0	0	2.00E-05			NA	NA	NA	NA	NA	NA	320087	236516	70443	25672	50085
NIR	TR2	NONE	landings	0	0	2.00E-05	4.00E-05	7.00E-05	3.00E-05	NA	NA	NA	NA	NA			6784	12440	221904	532885	758972	409182	NA	NA	NA	NA	NA
SCO	BT1	NONE	landings	0.004	0.00247	0.00212	0.00355	0.00209	0.00046	0.00046	NA	NA	NA	NA			866665	694716	730810	598616	349914	68568	53082	NA	NA	NA	NA
SCO	BT2	NONE	landings	0.01878	0.02404	0.01685	0.01127	0.01275	0.00664	0.00355	0.00088	NA	0.00015	0.00048			3765518	4608817	4185262	3108933	2790115	1351720	554376	144306	NA	68262	217190
SCO	GN1	NONE	landings	0	NA	NA	0	NA	NA	NA	NA	NA	NA	NA			196852	197407	165644	293823	320785	417076	376332	440579	607650	569749	422531.6
SCO	TR1	CPART13B	landings	NA	NA	NA	NA	NA	NA	0.00096	0.00279	0.00218	7.00E-05	NA			NA	NA	NA	NA	NA	NA	692932	955808	810706	36937	NA
SCO	TR1	CPART13C	landings	NA	NA	NA	NA	NA	NA	0.00566	0.00274	0.00356	0.00456	0.00771			NA	NA	NA	NA	NA	NA	11552644	9486824	9185531	9265940	8340695.27
SCO	TR1	NONE	landings	0.00432	0.00379	0.00316	0.00375	0.0036	0.00522	NA	NA	NA	NA	NA			16079389	12684328	12158295	11660764	11022982	12176292	NA	NA	NA	NA	NA
SCO	TR2	CPART13B	landings	NA	NA	NA	NA	NA	NA	0.00019	0.00023	0.00044	2.00E-05	NA			NA	NA	NA	NA	NA	NA	4219929	7467356	5277096	287446	NA
SCO	TR2	CPART13C	landings	NA	NA	NA	NA	NA	NA	0.00103	0.00022	5.00E-05	0.00032	3.00E-04			NA	NA	NA	NA	NA	NA	3796988	490013	1285425	4861297	3539873.36
SCO	TR2	NONE	landings	0.00156	0.00108	0.00095	0.00074	0.00101	0.00146	NA	NA	NA	NA	NA			9998937	9485974	9108232	8561812	8678139	8855742	NA	NA	NA	NA	NA
SCO	TR3	NONE	landings	NA	NA	0	NA	NA	NA	NA	NA	NA	0	0			6377	5460	2356	116	11896	NA	33117	27524	NA	20706	1566.6
SWE	LL1	NONE	landings	NA	NA	NA	NA	NA	0	0	0	0	0	NA			NA	1056	4239	15026	11020	10928	11352	6600	8184	5016	NA
SWE	TR1	NONE	landings	1.00E-05	1.00E-05	0	0	2.00E-05	5.00E-05	0	1.00E-05	0	1.00E-05	1.00E-05			381696	375455	387252	237269	269171	333387	245040	196354	189867	190816	270229
SWE	TR2	NONE	landings	NA	NA	0	0	0	0	NA	0	NA	NA	NA			4265	2055	1192	1298	2515	1059	NA	0	NA	3930	NA
Sum	NA	NA	NA	0.28325	0.25621	0.20458	0.19352	0.18667	0.14005	0.12971	0.12053	0.12508	0.12586	0.13821	NA	NA	124885533	116168546	112568095	104198066	94474459	83477476	81953233	77275306	69096526	61480063	61071579.8
(Sum of Fpars)/estimated F	NA	NA	NA	0.4643	0.5338	0.5114	0.4962	0.5657	0.5387	0.5405	0.5479	0.5956	0.5244	0.6581	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 5.3.10.12 **Plaice** in area **3b2**. The left part of the table lists estimated F trajectories from the management plan and the ICES 2014 plaice assessment, as well as partial Fs for **discards** of fisheries using regulated gears (in the North Sea). The right part of the table lists the respective trends in fishing effort (kW days at sea). Cod plan article 13 assignments apply since 2009 or 2010, as interpreted from the background documents of national declarations *). A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

From 2006 F reductions of 10 percent from previous year until F<=0.3 (Fmsy=0.25)																														
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013			2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
F plan	NA	NA	NA	NA	NA	NA	0.39	0.351	0.316	0.3	0.3	0.3	0.3	0.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
reduction F p	NA	NA	NA	NA	NA	NA	NA	-0.1	-0.1	-0.05	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
F estimated				0.61	0.48	0.4	0.39	0.33	0.26	0.24	0.22	0.21	0.24	0.21		Effort estima	124885533	116168546	112568095	104198066	94474459	83477476	81953233	77275306	69096526	61480063	61071579.8			
NA	NA	NA	NA	NA	NA	NA	NA	-0.15	-0.21	-0.08	-0.08	-0.05	0.14	-0.12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fpar																EFFORT														
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013		kW days at s	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
NIR	TR1	CPART13A	discards	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	NA			NA	NA	NA	NA	NA	NA	NA	NA	NA	2672	4310
BEL	BT1	NONE	discards	9.00E-05	0	0	0.00012	0	1.00E-04	0	0	0	0	1.00E-04			1036595	1439951	1509759	1333012	1320169	984056	575501	535636	671368	963867	1198066
BEL	BT2	NONE	discards	0.01487	0.0032	0.00105	0.00111	0.00084	0.00135	0.00149	0.00211	0.0018	0.00214	0.00259			4241216	4294884	3884007	3418751	2707991	3536979	3327143	2480357	1742532	1269319	1178340
BEL	GN1	NONE	discards	0	1.00E-05	0.00024	0	2.00E-05	0	0	0	0	0	0			111613	152642	148827	127951	128626	158409	161734	97609	95383	45103	36531
BEL	GT1	NONE	discards	NA	NA	NA	NA	0	0	0	0	0	0	0			NA	NA	NA	NA	15402	18000	5014	19041	18155	25216	12765
BEL	LL1	NONE	discards	NA	NA	NA	NA	NA	NA	NA	0	NA	0	NA			NA	NA	NA	NA	NA	1768	NA	1660	128	786	NA
BEL	TR1	NONE	discards	NA	NA	NA	NA	2.00E-05	2.00E-05	0	0	1.00E-05	0.00011	3.00E-05			NA	1989	NA	NA	161520	201379	220428	212429	128701	183682	145247
BEL	TR2	NONE	discards	NA	0.00063	0.00038	0.00065	0.00057	0.00027	1.00E-04	9.00E-05	0.00519	0.00056	0.00104			NA	519343	343840	366940	298814	425374	506865	476033	435961	484371	467533
BEL	TR3	NONE	discards	NA	NA	NA	NA	NA	NA	NA	0	NA	NA	NA			NA	NA	NA	NA	NA	663	NA	1899	NA	1175	6734
DEN	BT1	NONE	discards	0	0	0	8.00E-05	0	4.00E-05	0	0	0	0	2.00E-05			1122195	887830	996227	511642	527282	370939	366679	513056	373757	317294	288845.14
DEN	BT2	NONE	discards	0	3.00E-05	0.00043	0.00024	6.00E-05	2.00E-05	0.00026	NA	NA	NA	2.00E-05			89457	38279	62036	42447	1390	2894	49163	NA	440	242	5884
DEN	GN1	NONE	discards	0.00062	0.00066	0.06253	0.00055	8.00E-04	2.00E-05	0	0	0	1.00E-05	1.00E-05			2077492	2164307	2031057	1795453	949658	1003603	1050057	1195617	1136118	1080149	1059194.75
ENG	BT1	CPART13B	discards	NA	NA	NA	NA	NA	NA	NA	0	0	0	0			NA	NA	NA	NA	NA	NA	NA	202685	169873	384590	575557.5
DEN	GT1	NONE	discards	0	0	0.0104	0.00022	0	0	0.00022	0.00011	0	3.00E-05	3.00E-05			138641	244626	237800	175339	98614	100902	158205	130662	182841	321220	483287
DEN	LL1	NONE	discards	0	0	0	0	0	0	0	0	0	NA	NA			105319	79773	41626	42159	15924	25347	28769	45576	29388	21089	23908
DEN	TR1	NONE	discards	0.00041	0.00081	0.00154	0.00466	0.00014	0.00033	4.00E-05	2.00E-05	0.00014	0.00053	5.00E-05			7137074	6422756	6405176	6020308	3801069	4034203	3793148	3592389	3664621	3593770	3346857.69
DEN	TR2	NONE	discards	0.00763	0.00674	0.00304	0.0037	0.00391	0.00123	4.00E-05	0.00013	0.00082	0.00021	0.00079			2597949	2580788	1916695	1405216	1080616	706247	569359	431399	370536	312765	267597.2
DEN	TR3	NONE	discards	0	0	5.00E-05	0	0	0	0	NA	NA	0	0			3084554	3026636	2373302	1761200	799803	916558	577813	1063007	336257	477168	824551
ENG	BT1	NONE	discards	0.00059	0	0	0.00014	0	4.00E-05	0	NA	NA	0	NA			1060809	671130	618160	1321240	305837	228530	265710	NA	NA	40284	NA
ENG	BT2	CPART13B	discards	NA	NA	NA	NA	NA	NA	0	0.01407	0	0	0.00669			NA	NA	NA	NA	NA	NA	47771	2863860	2644958	2412375	2853225.5
ENG	BT2	NONE	discards	0.01268	0.01395	0.01425	0.00777	0.01304	0.00841	0.01324	0.00178	0.00018	0.00022	0			2739407	3559560	4046341	2974409	3251512	1975399	2444807	401247	96356	79036	28485.4
ENG	GN1	NONE	discards	0	0	3.00E-05	0	0	0	0	0	0	0	0			337639	359134	308275	308517	180503	70981	175602	74835	73826	61957	28671.5
ENG	GT1	NONE	discards	0	NA	0	0	0	0	0	0	0	0	0			1092	1564	5342	11100	3291	12918	12654	17355	12003	5823	12168.66
ENG	LL1	NONE	discards	0	NA	0	NA	NA	NA	NA	NA	NA	NA	0			102465	83137	142602	54974	15752	6164	4318	12052	6253	15449	8401.48
ENG	TR1	CPART13B	discards	NA	NA	NA	NA	NA	NA	0.00109	7.00E-04	0.00061	0.00256	0.0018			NA	NA	NA	NA	NA	NA	898933	964206	874021	939503	1089822.3
ENG	TR1	CPART13C	discards	NA	NA	NA	NA	NA	NA	0.00027	0.00014	2.00E-04	0.00042	4.00E-05			NA	NA	NA	NA	NA	NA	1242445	1144923	1254762	931671	1127181.16
ENG	TR1	NONE	discards	0.00147	0.00042	8.00E-05	0.00066	0.00035	0.00043	NA	NA	NA	NA	0			2343719	1497618	1254880	1823891	1501499	1846925	NA	NA	NA	NA	NA
ENG	TR2	CPART13B	discards	NA	NA	NA	NA	NA	NA	5.00E-05	0.00173	0.00464	0.00401	0.00173			NA	NA	NA	NA	NA	NA	260311	873808	721452	865045	542145.84
ENG	TR2	CPART13C	discards	NA	NA	NA	NA	NA	NA	0.00202	0.00033	0.00102	0.00039	8.00E-05			NA	NA	NA	NA	NA	NA	1376367	482080	524579	267661	236427.7
ENG	TR2	NONE	discards	0.00265	0.00174	0.00108	0.00161	0.00196	0.00227	NA	NA	NA	NA	NA			1853471	1705154	1937849	1707774	1621394	1794132	NA	NA	NA	NA	NA
ENG	TR3	NONE	discards	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	0			1988	7840	3315	6360	1220	492	82	718	621	246	216
FRA	BT2	NONE	discards	0.00039	0.00017	7.00E-05	4.00E-05	9.00E-05	8.00E-05	8.00E-05	5.00E-05	7.00E-05	1.00E-04	7.00E-05			96232	94514	75129	66203	103453	88053	88053	40118	67545	57044	56091
FRA	GN1	NONE	discards	0	7.00E-05	0.00036	0	0	0	0	0	0	0	0			58454	64809	46058	31231	61545	47746	46493	2149	7803	3322	1536
FRA	GT1	NONE	discards	0	0	0.00151	2.00E-05	0	0	5.00E-05	1.00E-05	3.00E-05	7.00E-05	7.00E-05			830136	793053	813190	1785801	1703889	1010253	1010253	634781	690428	636164	599605.33
GBJ	TR2	NONE	discards	NA	NA	0	NA	NA	NA	NA	NA	NA	NA	NA			NA	NA	660	NA	NA	NA	NA	NA	NA	NA	NA
FRA	TR1	NONE	discards	0	0	NA	NA	0	0	0	0	0	NA	0			3347063	2299125	1901534	2675348	2418190	2714146	2622538	1913401	1727371	324	20972.33
FRA	TR2	NONE	discards	0.00041	0.00025	1.00E-04	9.00E-05	0.00032	0.00013	2.00E-05	5.00E-05	0.00098	6.00E-05	4.00E-05			1961970	1911744	1713917	1558413	1727617	1930459	1924156	1089380	960559	725367	478490.58
FRA	TR3	NONE	discards	NA	NA	NA	NA	NA	NA	NA	0	0	NA	NA			NA	1753	7121	1319	NA	2184	2184	13827	2210	1250	84.5

Table 5.3.10.12 continued

GER	BT1	NONE	discards	2.00E-05	0	0	2.00E-05	0	0	NA	NA	NA	NA	1.00E-05			47736	29712	2128	53986	30297	16790	NA	884	1535	2793	65906			
GER	BT2	NONE	discards	0.0082	0.01235	0.00828	0.00697	0.00337	0.00178	0.00321	0.0044	0.00165	0.00218	0.00222			1669870	2060092	2212397	1927398	1590823	1464163	1666322	1801775	1242171	1071896	1290574			
GER	GN1	NONE	discards	1.00E-05	1.00E-05	0.00046	0	0.00011	0	0	0	0	0	0			191424	163463	271624	235427	145714	278008	233164	275364	225797	269836	241938			
GER	GT1	NONE	discards	NA	NA	NA	NA	NA	NA	0	0	0	NA	NA			NA	NA	NA	1547	NA	NA	15444	1188	924	NA	NA			
GER	TR1	CPART13B	discards	NA	NA	NA	NA	NA	NA	0	0	2.00E-05	1.00E-05	0			NA	NA	NA	NA	NA	NA	808679	898007	815730	747693	722448			
GER	TR1	NONE	discards	0.00012	4.00E-05	1.00E-04	0.00167	7.00E-05	0.00028	0	0	0.00013	0.00028	0.00027			1756193	1526666	1988209	2176131	1736694	1585192	759368	829604	741965	495051	598769			
GER	TR2	CPART13B	discards	NA	NA	NA	NA	NA	NA	1.00E-05	0.00024	5.00E-04	0.00027	0.00037			NA	NA	NA	NA	NA	NA	2420	39820	31240	14740	20680			
GER	TR2	NONE	discards	0.00995	0.00503	0.00266	0.00361	0.00422	0.00159	0.00042	0.00052	0.03308	0.00121	0.00258			1013535	893439	704404	771597	680681	457259	470754	420345	408157	320809	315656			
GER	TR3	NONE	discards	0	NA	NA	0	NA	NA	NA	NA	NA	NA	NA			1028	NA	NA	772	884	4410	426	NA	NA	NA	184			
IRL	TR2	NONE	discards	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA			54	884	NA	NA	NA	NA	NA	NA	NA	NA	NA			
NED	BT1	NONE	discards	0.00015	0	0	0.00014	0	4.00E-05	0	0	0	0	9.00E-05			575801	700747	719292	1528652	720068	370417	412420	378796	308516	1090258	1202666			
NED	BT2	NONE	discards	0.14199	0.1068	0.07612	0.07566	0.07039	0.05053	0.06468	0.0432	0.03723	0.05132	0.04283			47724234	44669317	44478122	38823660	37931313	27646215	28696410	28510104	25776297	22428296	23823379			
NED	GN1	NONE	discards	0	9.00E-05	0	0	0	0	0	0	0	0	0			460895	416025	387945	511580	521697	507733	419797	357091	316070	295035	233663			
NED	GT1	NONE	discards	NA	NA	NA	NA	NA	NA	0	0	1.00E-05	0	NA			NA	NA	NA	NA	NA	740	26917	37399	21431	29054	7442			
NED	TR1	NONE	discards	8.00E-05	4.00E-05	8.00E-05	0.00026	3.00E-05	0.00016	1.00E-05	1.00E-05	7.00E-05	0.00412	0.00104			684700	589170	547564	532260	631492	1400068	1316055	1290080	1173220	1329299	1196661			
NED	TR2	NONE	discards	0.00377	0.00231	0.00146	0.00291	0.00462	0.00346	0.00049	0.00068	0.04292	0.0018	0.00203			1932081	1496720	1298918	1224916	1384658	1853682	1334665	1231860	1313554	1277297	1181714			
NED	TR3	NONE	discards	NA	NA	1.00E-05	NA	0	NA	NA	NA	0	NA	0			59360	42894	43261	20649	20589	4038	274	31973	23268	25897	50615			
NIR	BT1	NONE	discards	0.00017	0	0	NA	NA	NA	NA	NA	NA	NA	NA			965239	543305	36825	NA	NA	NA	NA	NA	NA	NA	NA			
NIR	BT2	NONE	discards	0.00011	0.00015	0.00011	NA	NA	NA	NA	NA	NA	NA	NA			20350	47517	16785	NA	NA	NA	NA	NA	NA	NA	NA			
NIR	TR1	CPART13B	discards	NA	NA	NA	NA	NA	NA	0	0	0	0	NA			NA	NA	NA	NA	NA	NA	41944	23326	33246	16573	7062			
NIR	TR1	CPART13C	discards	NA	NA	NA	NA	NA	NA	0	0	NA	NA	0			NA	NA	NA	NA	NA	NA	14196	6034	NA	2781	16050			
NIR	TR1	NONE	discards	NA	0	0	0	0	0	NA	NA	NA	NA	NA			NA	16948	70710	51951	61460	49104	NA	NA	NA	NA	NA			
NIR	TR2	CPART13A	discards	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	0			NA	NA	NA	NA	NA	NA	NA	NA	NA	90338	245268.4			
NIR	TR2	CPART13B	discards	NA	NA	NA	NA	NA	NA	0	0	1.00E-05	1.00E-05	NA			NA	NA	NA	NA	NA	NA	65544	161981	207697	109647	NA			
NIR	TR2	CPART13C	discards	NA	NA	NA	NA	NA	NA	8.00E-05	1.00E-05	1.00E-05	1.00E-05	4.00E-05			NA	NA	NA	NA	NA	NA	320087	236516	70443	25672	50085			
NIR	TR2	NONE	discards	0	0	1.00E-05	5.00E-05	7.00E-05	2.00E-05	NA	NA	NA	NA	NA			6784	12440	221904	532885	758972	409182	NA	NA	NA	NA	NA			
SCO	BT1	NONE	discards	0.00021	0	0	8.00E-05	0	1.00E-05	0	NA	NA	NA	NA			866665	694716	730810	598616	349914	68568	53082	NA	NA	NA	NA			
SCO	BT2	NONE	discards	0.02002	0.0236	0.0142	0.01104	0.01064	0.00638	0.00415	0.00107	NA	0.00014	0.00045			3765518	4608817	4185262	3108933	2790115	1351720	554376	144306	NA	68262	217190			
SCO	GN1	NONE	discards	0	NA	NA	0	NA	NA	NA	NA	NA	NA	NA			196852	197407	165644	293823	320785	417076	376332	440579	607650	569749	422531.6			
SCO	TR1	CPART13B	discards	NA	NA	NA	NA	NA	NA	0.00029	0.00036	0.00024	3.00E-05	NA			NA	NA	NA	NA	NA	NA	692932	955808	810706	36937	NA			
SCO	TR1	CPART13C	discards	NA	NA	NA	NA	NA	NA	0.00106	0.00057	0.00057	5.00E-04	0.00074			NA	NA	NA	NA	NA	NA	11552644	9486824	9185531	9265940	8340695.27			
SCO	TR1	NONE	discards	0.00035	0.00021	0.00036	0.00112	1.00E-04	3.00E-04	NA	NA	NA	NA	NA			16079389	12684328	12158295	11660764	11022982	12176292	NA	NA	NA	NA	NA			
SCO	TR2	CPART13B	discards	NA	NA	NA	NA	NA	NA	0.00024	0.00019	0.00063	0.00025	NA			NA	NA	NA	NA	NA	NA	4219929	7467356	5277096	287446	NA			
SCO	TR2	CPART13C	discards	NA	NA	NA	NA	NA	NA	0.00132	0.00017	0.00012	0.0037	7.00E-04			NA	NA	NA	NA	NA	NA	3796988	490013	1285425	4861297	3539873.36			
SCO	TR2	NONE	discards	0.00153	0.00083	0.00049	0.00068	0.00121	0.00107	NA	NA	NA	NA	NA			9998937	9485974	9108232	8561812	8678139	8855742	NA	NA	NA	NA	NA			
SCO	TR3	NONE	discards	NA	NA	0	NA	NA	NA	NA	NA	NA	0	0			6377	5460	2356	116	11896	NA	33117	27524	NA	20706	1566.6			
SWE	LL1	NONE	discards	NA	NA	NA	NA	NA	0	0	0	0	0	NA			NA	1056	4239	15026	11020	10928	11352	6600	8184	5016	NA			
SWE	TR1	NONE	discards	0	0	0	0	0	0	0	0	0	0	0			381696	375455	387252	237269	269171	333387	245040	196354	189867	190816	270229			
SWE	TR2	NONE	discards	NA	NA	0	0	0	0	NA	0	NA	NA	NA			4265	2055	1192	1298	2515	1059	NA	0	NA	3930	NA			
Sum	NA	NA	NA	0.22849	0.18014	0.20148	0.12587	0.11695	0.08036	0.09493	0.07274	0.13288	0.07725	0.06857	NA	NA	124885533	116168546	112568095	104198066	94474459	83477476	81953233	77275306	69096526	61480063	61071579.8			
(Sum of Fpars)/estimated F	NA	NA	NA	0.3746	0.3753	0.5037	0.3227	0.3544	0.3091	0.3955	0.3306	0.6328	0.3219	0.3265	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			

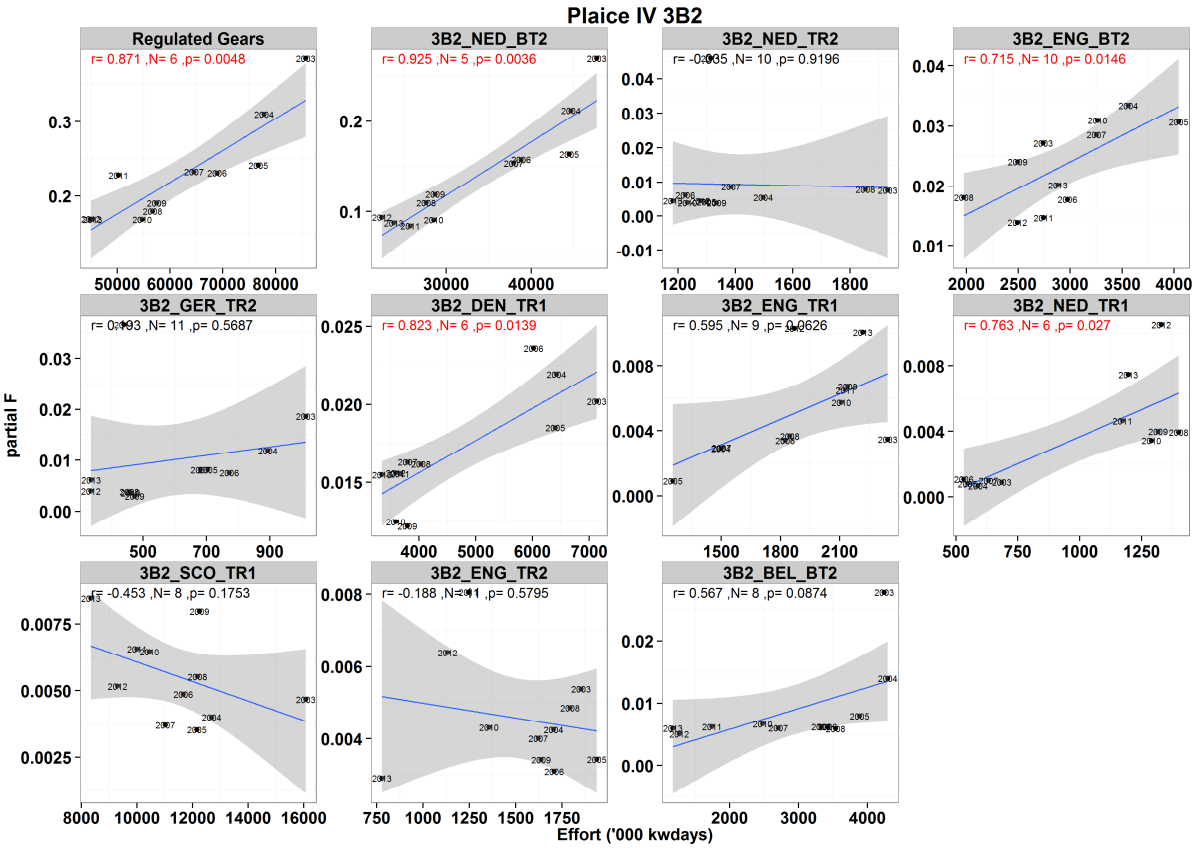


Fig. 5.3.10.5 Plaice. Partial fishing mortality (based on harvest rate estimates) against effort (kWd) in area 3b2 (North Sea) for all regulated gears combined, and the major fisheries individually. Ten metiers with highest catch are shown where catch >1% of total for the regulated area, ranked top left to bottom right. Data 2003-2013 aggregated across special conditions. r value shows linear model fit (grey 95% confidence interval), with p-value (significant relationships at 0.05 level shown in red; N and p values adjusted for autocorrelation).

Table 5.3.10.13 **Sole** in area **3b2**. The left part of the table lists estimated F trajectories from the management plan and the ICES 2014 sole assessment, as well as partial Fs for **catches** of fisheries using regulated gears (in the North Sea). The right part of the table lists the respective trends in fishing effort (kW days at sea). Cod plan article 13 assignments apply since 2009 or 2010, as interpreted from the background documents of national declarations *). A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

From 2006 F reductions of 10 percent from previous year until F<=0.2 (Fmsy=0.22)																														
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013			2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
F plan	NA	NA	NA	NA	NA	NA	0.471	0.424	0.382	0.344	0.31	0.279	0.251	0.226	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
reduction F p	NA	NA	NA	NA	NA	NA	NA	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
F estimated				0.595	0.519	0.575	0.471	0.473	0.391	0.398	0.391	0.347	0.249	0.232		Effort estima	124678039	115962568	112394004	103887803	94128243	83048413	81532432	76911993	68633248	60980162	60820271.6		
NA	NA	NA	NA	NA	NA	NA	NA	0	-0.17	0.02	-0.02	-0.11	-0.28	-0.07	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fpar																EFFORT													
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013		kW days at s	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
BEL	BT1	NONE	catches	0.00071	0.00068	0.00048	0.00068	0.00022	0.00018	9.00E-05	0.00011	0.00038	0.00037	0.00035			1036595	1439951	1509759	1333012	1320169	984056	575501	535636	671368	963867	1198066		
BEL	BT2	NONE	catches	0.05315	0.04063	0.04764	0.03681	0.03081	0.03761	0.03838	0.03725	0.02785	0.01291	0.01414			4241216	4294884	3884007	3418751	2707991	3536979	3327143	2480357	1742532	1269319	1178340		
BEL	GN1	NONE	catches	0.00079	0.00085	0.00115	0.00076	0.00077	0.00124	0.00148	0.00114	0.00059	0.00026	0.00022			111613	152642	148827	127951	128626	158409	161734	97609	95383	45103	36531		
BEL	GT1	NONE	catches	NA	NA	NA	NA	0.00043	0.00033	2.00E-05	0.00037	0.00036	0.00024	0.00017			NA	NA	NA	NA	15402	18000	5014	19041	18155	25216	12765		
BEL	LL1	NONE	catches	NA	NA	NA	NA	NA	NA	NA	0	NA	0	NA			NA	NA	NA	NA	NA	1768	NA	1660	128	786	NA		
BEL	TR1	NONE	catches	NA	NA	NA	NA	0	0	0	6.00E-05	0	0	3.00E-05			NA	1989	NA	NA	161520	201379	220428	212429	128701	183682	145247		
BEL	TR2	NONE	catches	NA	0.00245	0.00203	0.00168	0.0025	0.00338	0.00303	0.00367	0.00266	0.00146	0.00088			NA	519343	343840	366940	298814	425374	506865	476033	435961	484371	467533		
BEL	TR3	NONE	catches	NA	NA	NA	NA	NA	NA	NA	0	NA	0	0			NA	NA	NA	NA	NA	663	NA	1899	NA	1175	6734		
DEN	BT1	NONE	catches	0.00043	0.00058	4.00E-04	5.00E-04	0.00042	0.00023	9.00E-05	0.00017	2.00E-05	5.00E-05	9.00E-05			1122195	887830	996227	511642	527282	370939	366679	513056	373757	317294	288845.14		
DEN	BT2	NONE	catches	6.00E-05	5.00E-05	4.00E-05	1.00E-05	4.00E-05	1.00E-05	6.00E-05	NA	NA	NA	0			89457	38279	62036	42447	1390	2894	49163	NA	440	242	5884		
DEN	GN1	NONE	catches	0.01893	0.01792	0.02491	0.01969	0.01191	0.01127	0.0111	0.01134	0.00928	0.0082	0.00812			2077492	2164307	2031057	1795453	949658	1003603	1050057	1195617	1136118	1080149	1059194.75		
DEN	GT1	NONE	catches	0.00092	0.00131	0.00183	0.00049	0.00081	0.00066	0.00092	0.00062	0.00088	0.00075	0.00071			138641	244626	237800	175339	98614	100902	158205	130662	182841	321220	483287		
DEN	LL1	NONE	catches	0	0	0	0	NA	NA	NA	NA	NA	NA	NA			105319	79773	41626	42159	15924	25347	28769	45576	29388	21089	23908		
DEN	TR1	NONE	catches	0.00053	0.00037	0.00029	0.00038	0.00032	0.00027	3.00E-04	0.00012	9.00E-05	7.00E-05	5.00E-05			7137074	6422756	6405176	6020308	3801069	4034203	3793148	3592389	3664621	3593770	3346857.69		
DEN	TR2	NONE	catches	0.00099	0.00123	0.00073	0.00032	0.00033	0.00024	0.00011	3.00E-05	7.00E-05	1.00E-05	5.00E-05			2597949	2580788	1916695	1405216	1080616	706247	569359	431399	370536	312765	267597.2		
DEN	TR3	NONE	catches	1.00E-05	0	0	0	0	NA	0	NA	NA	NA	NA			3084554	3026636	2373302	1761200	799803	916558	577813	1063007	336257	477168	824551		
ENG	BT1	CPART13B	catches	NA	NA	NA	NA	NA	NA	NA	7.00E-05	3.00E-05	2.00E-05	3.00E-05			NA	NA	NA	NA	NA	NA	NA	202685	169873	384590	575557.5		
ENG	BT1	NONE	catches	0.00027	8.00E-05	0.00013	0.00026	3.00E-05	6.00E-05	4.00E-05	NA	NA	0	NA			1060809	671130	618160	1321240	305837	228530	265710	NA	NA	40284	NA		
ENG	BT2	CPART13B	catches	NA	NA	NA	NA	NA	NA	0.00137	0.01491	0.0099	0.0053	0.00797			NA	NA	NA	NA	NA	NA	47771	2863860	2644958	2412375	2853225.5		
ENG	BT2	NONE	catches	0.00817	0.01109	0.01201	0.01058	0.01219	0.00563	0.01198	0.00421	0.00092	0.00038	0.00026			2739407	3559560	4046341	2974409	3251512	1975399	2444807	401247	96356	79036	28485.4		
ENG	GN1	CPART13B	catches	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	NA			NA	NA	NA	NA	NA	NA	NA	111390	152556	102172	177099.99		
ENG	GN1	NONE	catches	4.00E-05	3.00E-05	3.00E-05	5.00E-05	0.00015	7.00E-05	5.00E-05	4.00E-05	7.00E-05	4.00E-05	7.00E-05			337639	359134	308275	308517	180503	70981	175602	74835	73826	61957	28671.5		
ENG	GT1	NONE	catches	0	0	8.00E-05	0.00015	3.00E-05	5.00E-05	7.00E-05	7.00E-05	8.00E-05	3.00E-05	2.00E-05			1092	1564	5342	11100	3291	12918	12654	17355	12003	5823	12168.66		
ENG	LL1	NONE	catches	0	0	NA	0	NA	NA	NA	NA	NA	NA	0			102465	83137	142602	54974	15752	6164	4318	12052	6253	15449	8401.48		
ENG	TR1	CPART13B	catches	NA	NA	NA	NA	NA	NA	3.00E-05	3.00E-05	2.00E-05	2.00E-05	1.00E-05			NA	NA	NA	NA	NA	NA	898933	964206	874021	939503	1089822.3		
ENG	TR1	CPART13C	catches	NA	NA	NA	NA	NA	NA	0.00022	0.00011	8.00E-05	5.00E-05	3.00E-05			NA	NA	NA	NA	NA	NA	1242445	1144923	1254762	931671	1127181.16		
ENG	TR1	NONE	catches	2.00E-04	1.00E-04	8.00E-05	0.00013	0.00015	0.00016	NA	NA	NA	NA	NA			2343719	1497618	1254880	1823891	1501499	1846925	NA	NA	NA	NA	NA		
ENG	TR2	CPART13B	catches	NA	NA	NA	NA	NA	NA	0.00019	0.00041	0.0013	0.00066	0.00063			NA	NA	NA	NA	NA	NA	260311	873808	721452	865045	542145.84		
ENG	TR2	CPART13C	catches	NA	NA	NA	NA	NA	NA	0.00261	0.00111	0.00074	0.00032	0.00021			NA	NA	NA	NA	NA	NA	1376367	482080	524579	267661	236427.7		
ENG	TR2	NONE	catches	0.00134	0.00152	0.0015	0.00203	0.00316	0.00256	NA	NA	NA	NA	NA			1853471	1705154	1937849	1707774	1621394	1794132	NA	NA	NA	NA	NA		
ENG	TR3	NONE	catches	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	0			1988	7840	3315	6360	1220	492	82	718	621	246	216		
FRA	BT2	NONE	catches	0.00186	0.00136	0.00121	0.00075	0.00102	0.00071	0.00075	0.00061	0.00061	0.00055	0.00049			96232	94514	75129	66203	103453	88053	88053	40118	67545	57044	56091		
FRA	GN1	NONE	catches	0.00102	0.0012	0.00126	0.00021	0.00014	0.00032	0.00033	3.00E-05	2.00E-05	0	0			58454	64809	46058	31231	61545	47746	46493	2149	7803	3322	1536		
FRA	GT1	NONE	catches	0.01913	0.01502	0.02121	0.02306	0.01854	0.02012	0.02076	0.0071	0.01333	0.0112	0.009			830136	793053	813190	1785801	1703889	1010253	1010253	634781	690428	636164	599605.33		
FRA	TR1	NONE	catches	NA	NA	0	NA	3.00E-05	NA	NA	0	0	0	NA			3347063	2299125	1901534	2675348	2418190	2714146	2622538	1913401	1727371	324	20972.33		
FRA	TR2	NONE	catches	0.00048	0.00055	0.00012	0.00012	0.00042	0.00012	1.00E-04	0.00012	6.00E-05	6.00E-05	4.00E-05			1961970	1911744	1713917	1558413	1727617	1930459	1924156	1089380	960559	725367	478490.58		
FRA	TR3	NONE	catches	NA	NA	0	NA	NA	0	0	NA	NA	0	0			NA	1753	7121	1319	NA	2184	2184	13827	2210	1250	84.5		

Table 5.3.10.13 continued.

GER	BT1	NONE	catches	0.00034	1.00E-05	0	1.00E-04	0	2.00E-05	NA	NA	NA	NA	0			47736	29712	2128	53986	30297	16790	NA		884	1535	2793	65906				
GER	BT2	NONE	catches	0.02146	0.02585	0.02342	0.0151	0.01166	0.00934	0.0108	0.01163	0.00621	0.00596	0.00798			1669870	2060092	2212397	1927398	1590823	1464163	1666322		1801775	1242171	1071896	1290574				
GER	GN1	NONE	catches	0.00247	0.00248	0.00422	0.00361	0.00259	0.00402	0.00406	0.00467	0.00381	0.00343	0.00208			191424	163463	271624	235427	145714	278008	233164		275364	225797	269836	241938				
GER	GT1	NONE	catches	NA	NA	NA	NA	NA	NA	0.00079	1.00E-04	8.00E-05	NA	NA			NA	NA	NA	1547	NA	NA	15444		1188	924	NA	NA				
GER	TR1	CPART13B	catches	NA	NA	NA	NA	NA	NA	NA	0	0	0	NA			NA	NA	NA	NA	NA	NA	808679		898007	815730	747693	722448				
GER	TR1	NONE	catches	2.00E-05	1.00E-05	3.00E-05	5.00E-05	1.00E-05	3.00E-05	2.00E-05	2.00E-05	0	0	0			1756193	1526666	1988209	2176131	1736694	1585192	759368		829604	741965	495051	598769				
GER	TR2	CPART13B	catches	NA	NA	NA	NA	NA	NA	0	3.00E-05	1.00E-05	0	0			NA	NA	NA	NA	NA	NA	2420		39820	31240	14740	20680				
GER	TR2	NONE	catches	0.0025	0.00169	0.00091	5.00E-04	9.00E-04	0.00075	0.00078	0.00052	0.00063	0.00024	0.00028			1013535	893439	704404	771597	680681	457259	470754		420345	408157	320809	315656				
GER	TR3	NONE	catches	0	NA	NA	1.00E-05	NA	NA	NA	NA	NA	NA	NA			1028	NA	NA	772	884	4410	426	NA	NA	NA	NA	184				
IRL	TR2	NONE	catches	NA	0	NA	NA	NA	NA	NA	NA	NA	NA	NA			54	884	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA				
NED	BT1	NONE	catches	0.00027	0.00017	0.00018	0.00049	0.00016	0.00033	0.00049	9.00E-05	3.00E-05	4.00E-05	4.00E-05			575801	700747	719292	1528652	720068	370417	412420		378796	308516	1090258	1202666				
NED	BT2	NONE	catches	0.49964	0.44022	0.4541	0.38039	0.38263	0.29167	0.31888	0.31728	0.26478	0.22183	0.19896			47724234	44669317	44478122	38823660	37931313	27646215	28696410		28510104	25776297	22428296	23823379				
NED	GN1	NONE	catches	0.00106	0.00136	0.00179	0.00393	0.00489	0.00459	0.00566	0.00512	0.00462	0.00472	0.00373			460895	416025	387945	511580	521697	507733	419797		357091	316070	295035	233663				
NED	GT1	NONE	catches	NA	NA	NA	NA	NA	0	2.00E-05	2.00E-04	0	0.00027	0			NA	NA	NA	NA	NA	740	26917		37399	21431	29054	7442				
NED	TR1	NONE	catches	3.00E-05	0	0	0	3.00E-05	3.00E-05	1.00E-05	6.00E-05	0	0	2.00E-05			684700	589170	547564	532260	631492	1400068	1316055		1290080	1173220	1329299	1196661				
NED	TR2	NONE	catches	0.00332	0.00062	0.00077	0.00082	0.00149	0.00262	0.00092	0.00071	0.00091	0.00049	5.00E-04			1932081	1496720	1298918	1224916	1384658	1853682	1334665		1231860	1313554	1277297	1181714				
NED	TR3	NONE	catches	NA	NA	NA	NA	0	0	NA	NA	NA	NA	0			59360	42894	43261	20649	20589	4038	274		31973	23268	25897	50615				
NIR	BT1	NONE	catches	0.00118	0.00048	0.00012	NA	NA	NA	NA	NA	NA	NA	NA			965239	543305	36825	NA	NA	NA	NA	NA	NA	NA	NA	NA				
NIR	BT2	NONE	catches	7.00E-05	7.00E-05	4.00E-05	NA	NA	NA	NA	NA	NA	NA	NA			20350	47517	16785	NA	NA	NA	NA	NA	NA	NA	NA	NA				
NIR	TR1	CPART13B	catches	NA	NA	NA	NA	NA	NA	NA	NA	NA	0	NA			NA	NA	NA	NA	NA	NA	41944		23326	33246	16573	7062				
NIR	TR1	CPART13C	catches	NA	NA	NA	NA	NA	NA	0	0	NA	0	NA			NA	NA	NA	NA	NA	NA	14196		6034	NA	2781	16050				
NIR	TR1	NONE	catches	NA	NA	0	0	0	NA	NA	NA	NA	NA	NA			NA	16948	70710	51951	61460	49104	NA	NA	NA	NA	NA	NA				
NIR	TR2	CPART13A	catches	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.00E-05	1.00E-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	90338	245268.4				
NIR	TR2	CPART13B	catches	NA	NA	NA	NA	NA	NA	NA	1.00E-05	1.00E-05	0	NA			NA	NA	NA	NA	NA	NA	65544		161981	207697	109647	NA				
NIR	TR2	CPART13C	catches	NA	NA	NA	NA	NA	NA	1.00E-05	1.00E-05	0	0	0			NA	NA	NA	NA	NA	NA	320087		236516	70443	25672	50085				
NIR	TR2	NONE	catches	NA	0	1.00E-05	3.00E-05	2.00E-05	0	NA	NA	NA	NA	NA			6784	12440	221904	532885	758972	409182	NA		NA	NA	NA	NA				
SCO	BT1	NONE	catches	0.00038	0.00014	0.00018	0.00031	0.00018	0	1.00E-05	NA	NA	NA	NA			866665	694716	730810	598616	349914	68568	53082	NA	NA	NA	NA	NA				
SCO	BT2	NONE	catches	0.00876	0.01106	0.01394	0.01387	0.01723	0.00671	0.00314	0.00109	NA	0.00046	0.00114			3765518	4608817	4185262	3108933	2790115	1351720	554376		144306	NA	68262	217190				
SCO	TR1	CPART13B	catches	NA	NA	NA	NA	NA	NA	1.00E-05	2.00E-05	1.00E-05	NA	NA			NA	NA	NA	NA	NA	NA	692932		955808	810706	36937	NA				
SCO	TR1	CPART13C	catches	NA	NA	NA	NA	NA	NA	2.00E-05	2.00E-05	6.00E-05	2.00E-05	4.00E-05			NA	NA	NA	NA	NA	NA	11552644		9486824	9185531	9265940	8340695.27				
SCO	TR1	NONE	catches	4.00E-05	2.00E-05	3.00E-05	2.00E-05	1.00E-05	5.00E-05	NA	NA	NA	NA	NA			16079389	12684328	12158295	11660764	11022982	12176292	NA		NA	NA	NA	NA				
SCO	TR2	CPART13B	catches	NA	NA	NA	NA	NA	NA	1.00E-05	3.00E-05	5.00E-05	NA	NA			NA	NA	NA	NA	NA	NA	4219929		7467356	5277096	287446	NA				
SCO	TR2	CPART13C	catches	NA	NA	NA	NA	NA	NA	0.00011	0.00011	0	6.00E-05	5.00E-05			NA	NA	NA	NA	NA	NA	3796988		490013	1285425	4861297	3539873.36				
SCO	TR2	NONE	catches	8.00E-05	5.00E-05	4.00E-05	0.00017	0.00022	0.00022	NA	NA	NA	NA	NA			9998937	9485974	9108232	8561812	8678139	8855742	NA		NA	NA	NA	NA				
SWE	TR1	NONE	catches	0	NA	NA	NA	NA	NA	NA	NA	0	NA	NA			381696	375455	387252	237269	269171	333387	245040		196354	189867	190816	270229				
Sum	NA	NA	NA	0.65065	0.58125	0.61691	0.51806	0.50644	0.4056	0.43982	0.42542	0.35055	0.28048	0.2584	NA	NA	124678039	115962568	112394004	103887803	94128243	83048413	81532432		76911993	68633248	60980162	60820271.6				
(Sum of Fpars)/estimated F	NA	NA	NA	1.0935	1.1199	1.0729	1.0999	1.0707	1.0373	1.1051	1.088	1.0102	1.1264	1.1138	NA	NA	NA	NA	NA	NA	NA	NA	NA		NA	NA	NA	NA				

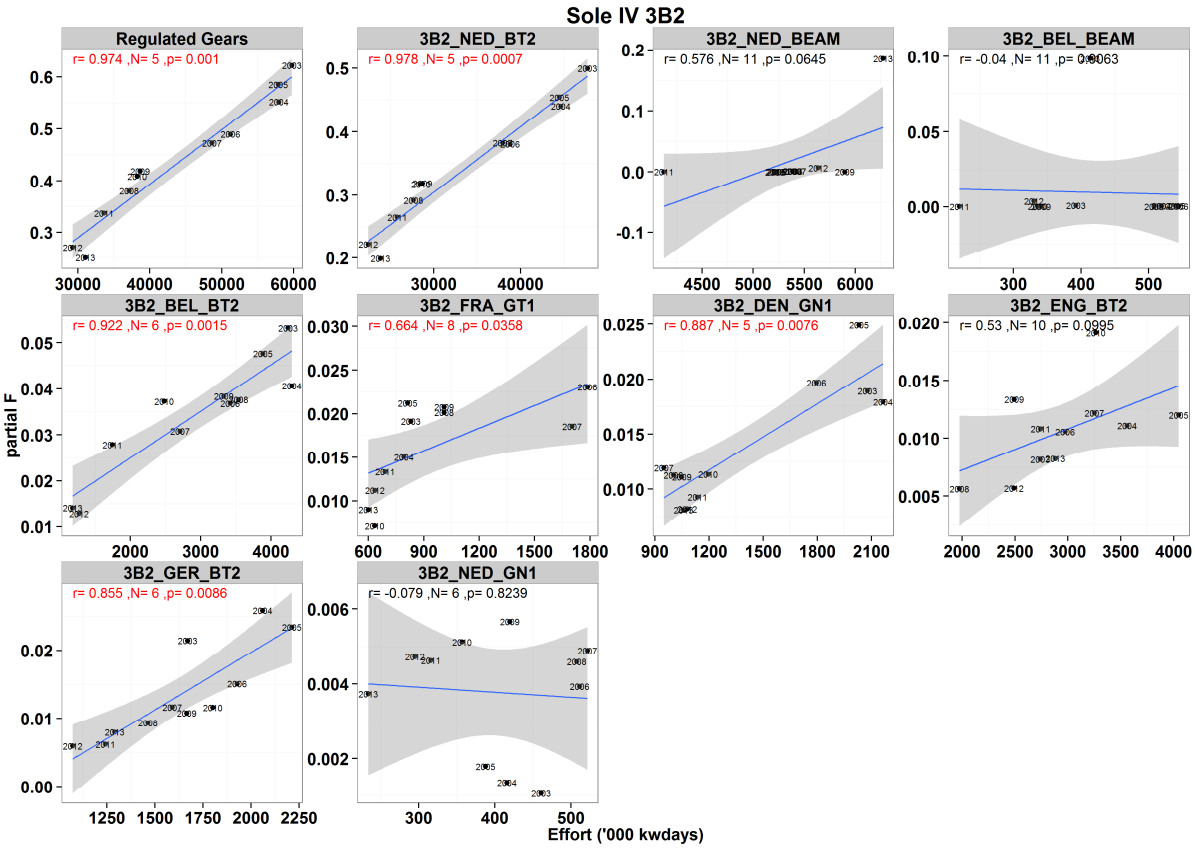


Fig. 5.3.10.6 Sole. Partial fishing mortality (based on harvest rate estimates) against effort (kWd) in area 3b2 (North Sea) for all regulated gears combined, and the major fisheries individually. Ten metiers with highest catch are shown where catch >1% of total for the regulated area, ranked top left to bottom right. Data 2003-2013 aggregated across special conditions. r value shows linear model fit (grey 95% confidence interval), with p-value (significant relationships at 0.05 level shown in red; N and p values adjusted for autocorrelation).

5.3.12 ToR 9 Trends in fishing mortality and fishing effort by Member State and fisheries with regards to the cod plan (R (EC) No 1342/2008) provisions, in particular with regard to Article 13

The detailed ToR for this task were;

"To quantitatively assess the annual trend in cod mortality that would have resulted from the fishing mortality adjustments in Article 8 and the trends in fishing effort that would have resulted from Article 12

of Council Reg. 1342/2008, for the period 2008 to 2013. STECF is requested to comment on whether and to what extent the Member States application of Article 13, Paragraph 2, points a, b, and c have supported the reduction of cod fishing mortality as defined in Articles 8 and 9 and whether the increased fishing effort deployed by Member States was commensurate with the fishing mortality level target for 2013. The group is requested to quantify for each Member State and effort group (Annex I to Council Reg. 1342/2008) the partial target fishing mortality of cod, and partial fishing mortality of cod generated in excess of the cod plan, and, if a significant correlation between cod fishing mortality and fishing effort exists, the corresponding amounts of target fishing effort and of the excessive fishing effort in units of kW.days at sea."

In order to address this terms of reference, STECF EWG 14-13 has divided the question into three parts;

1. To quantitatively assess the annual trend in cod mortality that would have resulted from the fishing mortality adjustments in Article 8 and the trends in fishing effort that would have resulted from Article 12 of Council Reg. 1342/2008, for the period 2008 to 2013.

This ToR was addressed by ToR 8 and the associated electronic annex to the report. As such, no further comment is made in this section.

2. STECF is requested to comment on whether and to what extent the Member States application of Article 13, Paragraph 2, points a, b, and c have supported the reduction of cod fishing mortality as defined in Articles 8 and 9 and whether the increased fishing effort deployed by Member States was commensurate with the fishing mortality level target for 2013.

Article 13a has not been adopted by any Member State, and so there is no detailed discussion of this provision in this section.

Article 13b is for 'effort groups in which the fishing activity of one or more vessels results in a catch composition of less than 5% cod per fishing trips'. STECF has already stated that a catch composition special condition was not necessarily consistent with reductions in cod mortality as it does not control the overall amount of cod caught. STECF went on to further note that Article 13 2b;

"(i) may result in significant cod catches where large volume fisheries catch cod as a bycatch and this results in significant removals, particularly where the cod stock is depleted; (ii) it offers a perverse incentive to catch more of other species in order to reduce the percentage catch of cod. If this derogation is to contribute to a reduction in exploitation of cod it is important that the total amount of cod caught by vessels under this does not contribute significantly to mortality. Therefore there is a need to have an overall cap on the catch of cod as a % of the TAC for cod taken by all vessels covered by this derogation. Such an approach would require monitoring of total catch, as with fully documented fisheries (STECF 12-13).

STECF EWG 14-13 reiterates these comments.

Article 13c has only been adopted by the UK in areas 3b1, 3b2 or 3b3 and is applied to the entire fleet not subject to article 13b or exempted under article 11. In order to evaluate whether trends in partial F for the UK regulated gears have followed those of the overall F and effort, figure 5.3.12.1 shows the trends in partial F by Member State for regulated gears, standardised to their 2008 level. **It should be noted that**

effort reductions have not been stipulated under the plan for all gears and agreed TACs were from 2013 onwards no longer in line with the adviced reductions needed to reach the F values of the plan. Therefore, effort levels and F would not necessarily have been expected to reduce to the levels under implementation of the management plan. It can be seen that partial F for all Member States has reduced since 2008, though such reductions have not always been consistent (i.e. linearly proportional) with changes in effort by regulated gears. There has been some decoupling of cod from fishing effort, consistent with cod avoidance. Figure 5.3.12.2 shows the catchability trends in the major cod fisheries in the North Sea (area 3b2). It can be seen that, in some countries there has been a downward trend in catchability indicating that such a decoupling of fishing mortality is occurring. But this cannot not be seen for the UK TR1 and TR2 fisheries, which are partly operating under Article 13.2c.

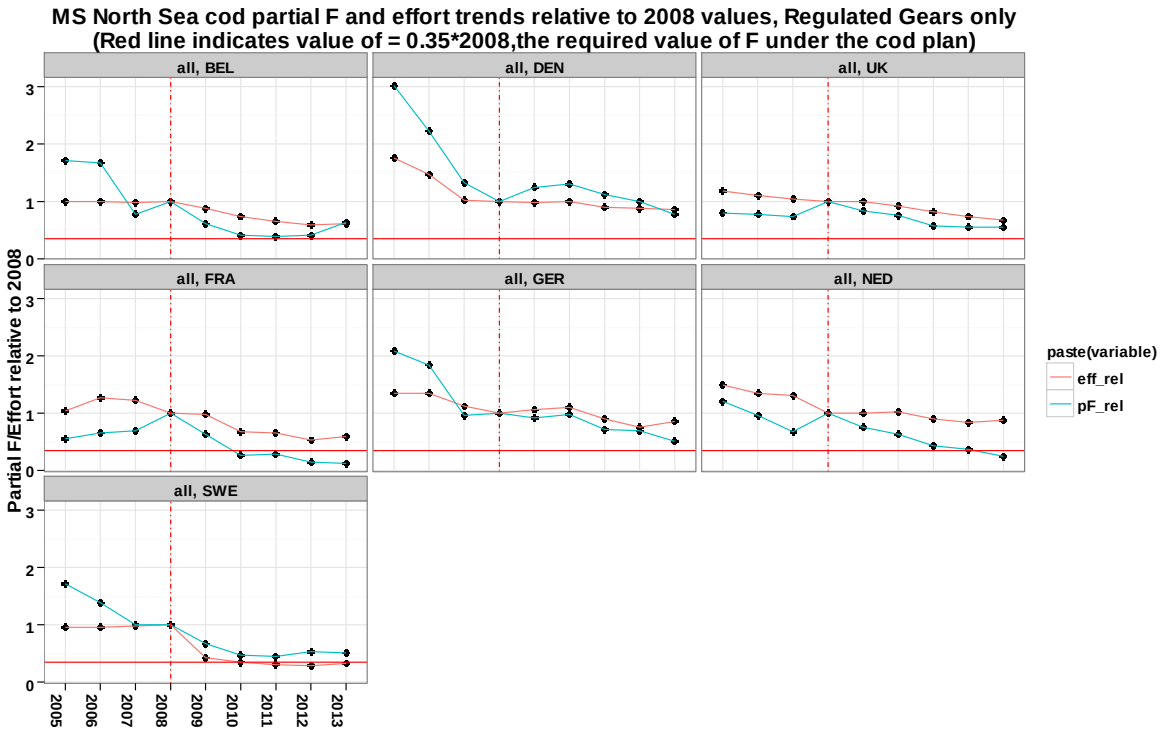


Figure 5.3.11.1. Trends in partial fishing mortality as estimated by STECF EWG 14-13 and fishing effort for Member States regulated gears, standardised to 2008 levels. Red lines indicate trends in partial F and blue lines trends in kW days fishing effort by regulated gears. Dotted red vertical line indicates 2008 level, and solid red horizontal line indicates 0.35*2008 values.

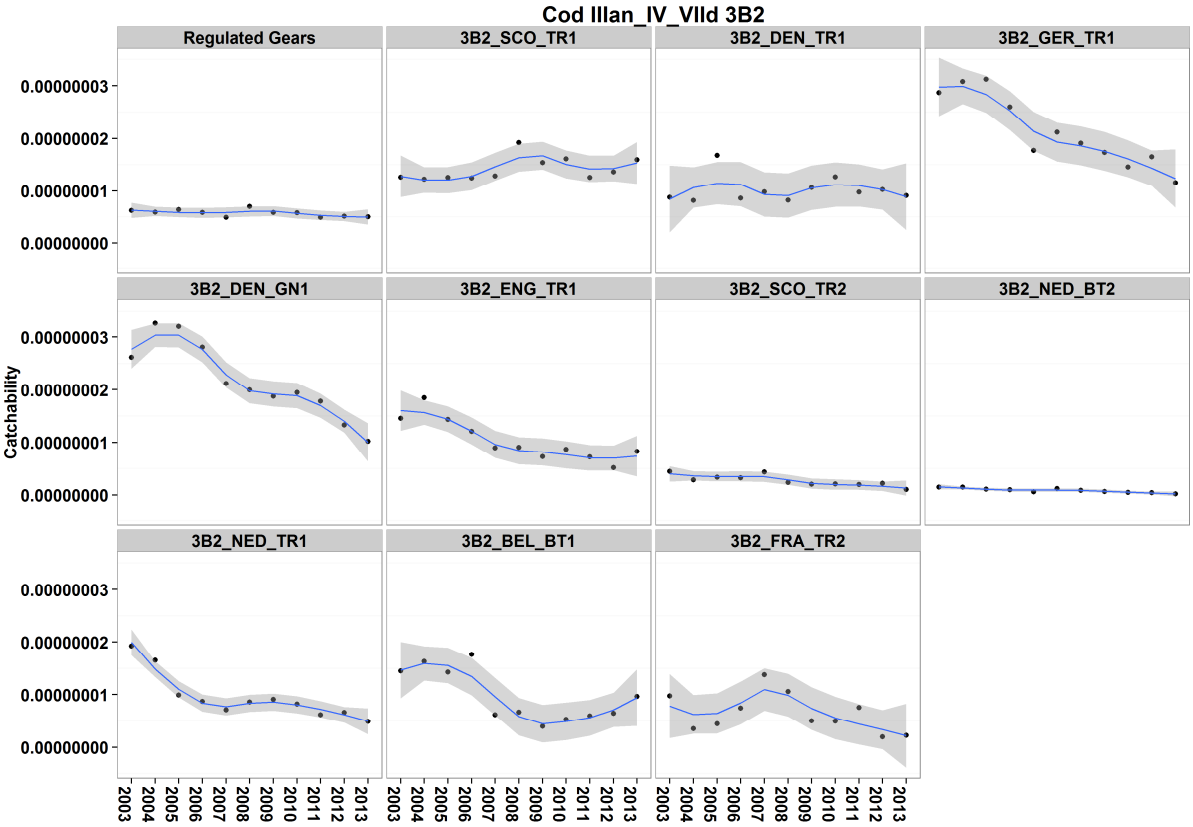


Figure 5.3.12.2. Cod catchability estimates in 3b2 for all regulated gears and the major fisheries individually. Catchability estimated as (pF/kw days) with the blue line indicating a local regression smoother, the grey area 95% confidence limits.

3. *The group is requested to quantify for each Member State and effort group (Annex I to Council Reg. 1342/2008) the partial target fishing mortality of cod, and partial fishing mortality of cod generated in excess of the cod plan, and, if a significant correlation between cod fishing mortality and fishing effort exists, the corresponding amounts of target fishing effort and of the excessive fishing effort in units of kW.days at sea.*

It has to be noted that effort reductions have not been stipulated under the plan for all gears and agreed TACs were from 2013 onwards no longer in line with the adviced reductions needed to reach the F values of the plan. Therefore, effort levels and F would not necessarily have been expected to reduce to the levels under implementation of the management plan. It is not possible to differentiate between excessive fishing mortality caused by no longer following the scientific advice in line with the plan and excessive fishing mortality caused by too high fishing effort.

To calculate partial target fishing mortalities for cod by member state and effort group requires definition of proportions of overall F to be allocated to each effort group. These proportions have not remained stable in recent years as vessels are re-classified to a different special condition – as such, any assumption of target partial F for fleets based on recent years does not seem appropriate. Given a lack of knowledge

on shares of partial F values among fisheries the definition of partial target fishing mortalities is not considered possible.

In addition the F in the terminal year of the assessment can be regarded as uncertain (or there is sometimes a known retrospective bias occurring in the most recent years). Therefore, any result would be subject to revisions whenever a new assessment becomes available.

Given these problems no values for excessive effort have been calculated.

5.3.13 ToR 10 Considerations in order to accomplish spatio-temporal patterns in standardized catchability indices for cod

5.3.13.1 Introduction

Catchability (q) is defined as the relationship between the catch rate (CPUE) and the true population size. Consequently, the unit of catchability is fish caught per fish available per effort unit and per time unit, or, in easier words, catchability can conceptually be considered as the probability of any single fish being caught (Jul-Larsen *et al*., 2003).

Many factors are related to catchability, e.g. mainly fish abundance at a certain time in a certain area and gear efficiency (fishing power) including use of the gear and fishers' experience (Marchal *et al*., 2001). A standard solution to evaluate changes in catchability is therefore to compare catch rates from commercial and research fishing where the catchability of the research fishing is holding constant from year to year (Neis *et al*.,1999):

CPUE (fishery)/CPUE (survey) = q (fishery)/q (survey)

This catchability index has no units. STECF EWG 14-13 interprets the resulting ratio as an index of fishing mortality per individual fish independent of stock size, which allows spatio-temporal analyses. The calculation of catchability indices for cod per ICES statistical square (rectangle) and year from standardized and averaged ratios between CPUE by fishery /NS IBTS Q1 indices are therefore believed to provide indications of spatio-temporal patterns.

5.3.13.2 Data

NS IBTS Q1 data were downloaded from the ICES DATRAS server, i.e. station data and catch data for the years 2003-2013. Only hauls assigned valid and with haul duration equal or longer the 20 min. were considered. Stations with cod catches were selected using the codes 164712 (TSN from the Integrated Taxonomic Information System ITIS) and 126436 (WoRMS, Word Register of Marine Species), as appropriate. The two data sets were linked and CatCatchWg (grams) was standardized to kg/hour.

Annual average Q1 CPUE indices (kg/hours) per rectangle were calculated for cod and averaged for the period 2008-2012.

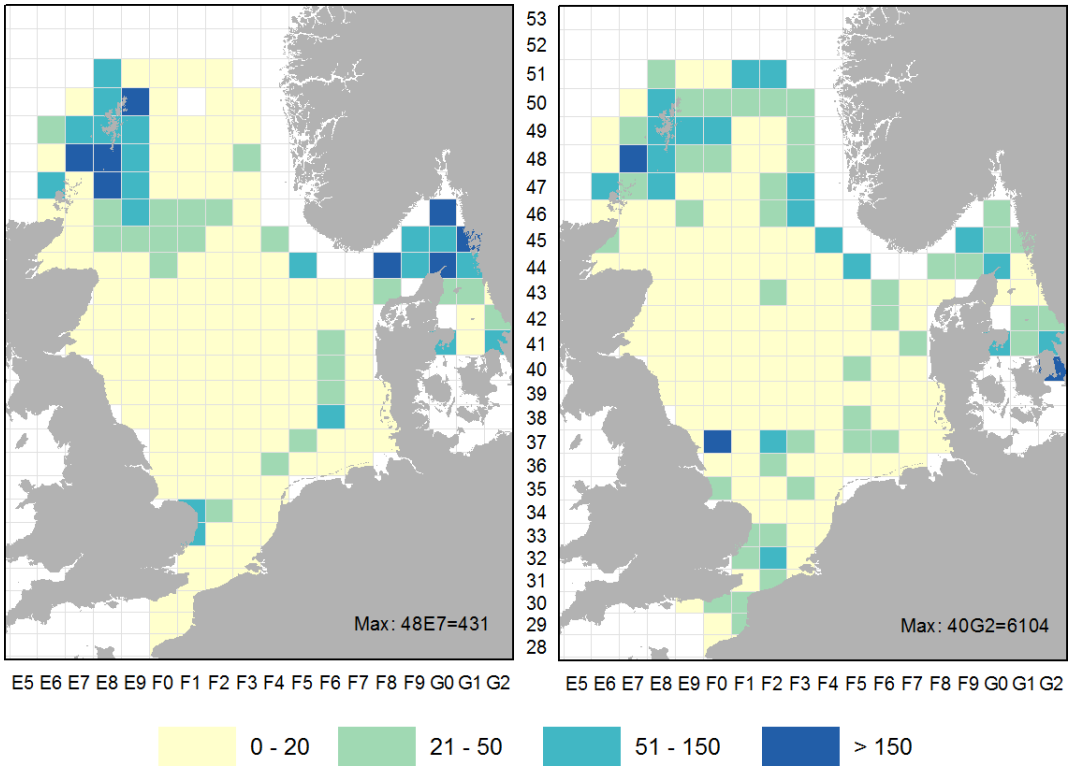


Fig. 5.3.13.2.1. Average annual NS IBTS Q1 CPUE indices (kg/hours) per rectangle for cod in 2013 (left panel) and averaged over 2008-2012 (right panel).

In 2013, cod appears widely distributed and quite scattered over the entire North Sea, Skagerrak and in the Eastern Channel (Fig. 5.3.13.2.1). Distinctly higher concentrations are recorded around the Shetland Islands and in the Skagerrak. From 2013 data and from data averaged over the years 2008-2012 cod abundance in the central North Sea appears low. The time averaged data also shows higher concentrations at the northern slope towards the Norwegian trench and in the southern bight into the Eastern Channel.

DCF data on annual landings per rectangle data (Table E, landings in tons) were summed in each year for all effort regulated gear groups by rectangle, excluding the recorded landing of small vessels (<10m). The landings per rectangle and fishery (métier) were raised to catches based on discard rates estimated by year, management area, gear, mesh size, special condition (derogation, where applicable for effort regulated gears), and nation. The estimated cod catches per rectangle are shown in Fig. 5.3.13.2.2. Average geographical distribution of estimated catches resembles the stock distribution as perceived from the IBTS Q1 survey indices (Fig. 1 and 2). Highest landings are seen along the northern slopes into the Norwegian trench and the Skagerrak. Higher landings are also common in the southern bight, while the central western North Sea is the area with lowest cod catches on average.

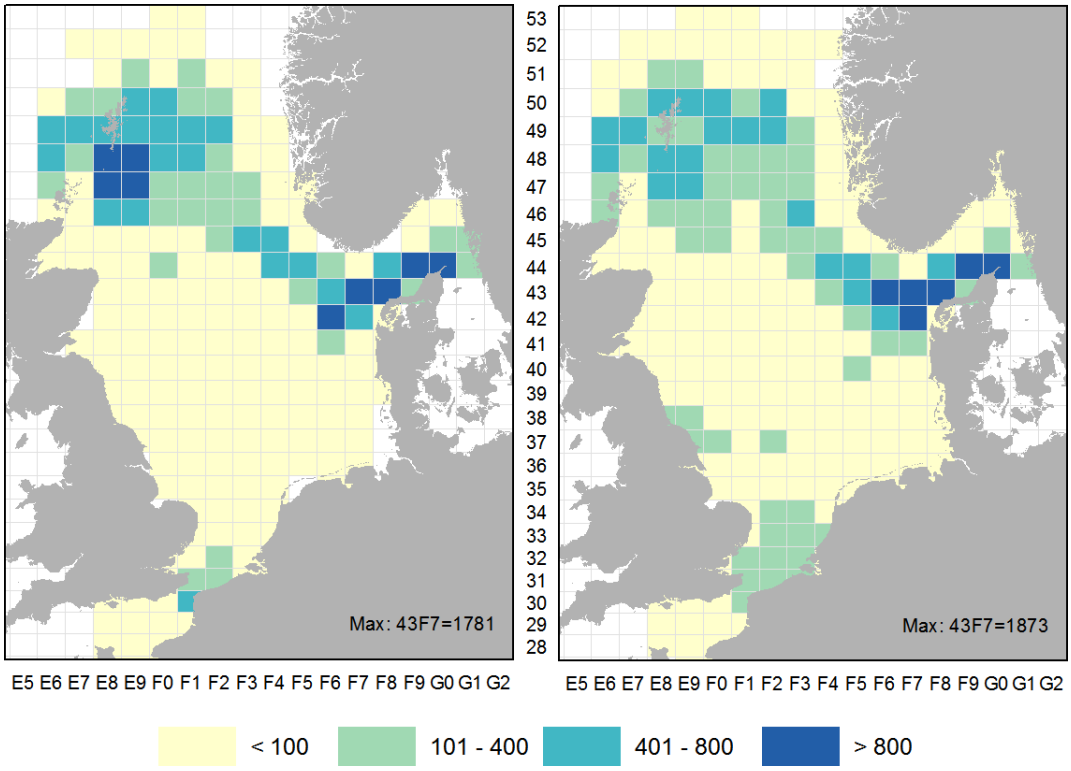


Fig. 5.3.12.2.2. Annual cod catches (t) of effort regulated gear groups per rectangle in 2013 (left panel) and averaged for the period 2008-2012 (right panel).

Fisheries specific DCF data on annual fishing effort per rectangle (Table C, fished hours per rectangle) were summed across all effort regulated gear groups and years, excluding the under 10m boats. The resulting annual fishing effort estimates per rectangle and year were averaged for the period 2008-2012 and the geographical distribution patterns are shown in Fig. 5.3.13.2.3. Higher effort amounts are found north east from Scotland (including around Shetland), in the Skagerrak, in the southern bight and eastern channel and with localized concentrations of effort at points along the UK coast, while the central and western North Sea is the area with lowest fishing effort on average. The pattern in 2013 indicates a similar geographical structure to the longer term pattern, but with greater avoidance of the central North Sea area in 2013.

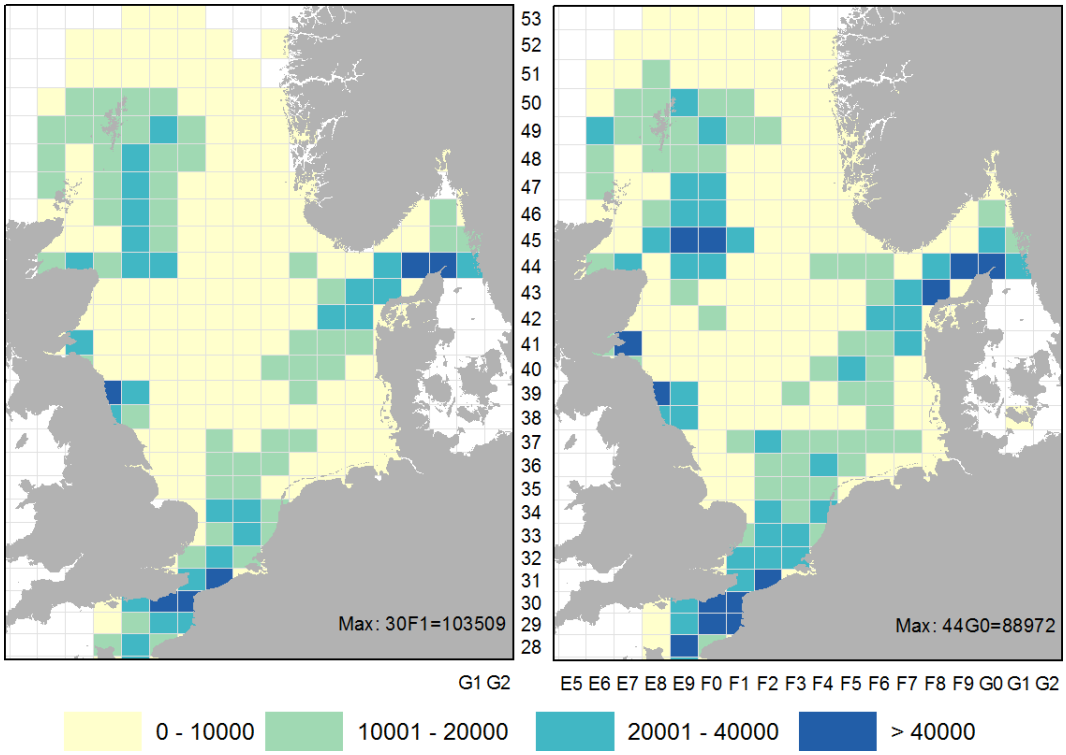


Fig. 5.3.13.2.3. Annual fishing effort (hours fished) of effort regulated gear groups per rectangle in 2013 (left panel) and averaged for the period 2008-2012 (right panel).

The annual effective effort data of effort regulated gears by rectangle (Table C, in units of hours fished) and estimated annual cod catches of effort regulated gears per rectangle data (Table E, in units of tons) were linked and for each fishery the annual CPUE (kg/hours) was calculated.

Annual catchability coefficients by fishery and rectangle are determined from the log-transformed CPUE per fishery divided by the log-transformed IBTS survey indices for cod. Log-transformation was done as $f(x) = \ln(x+1)$ to decrease the variation and to avoid negative values. Such standardised catchability indices were then averaged over each of the rectangles over the period 2008-2012 and compared with the 2013 estimates.

5.3.13.3 Results

The resulting geographical patterns in catchability values are quite scattered, despite the applied log-transformation to the commercial LPUE and to the survey indices. This could be an effect of the standardisation using the highly variable indices from the NS IBTS Q1 survey. It is also the case that the commercial data has been aggregated over gears with different characteristics used to target different stocks. The data basis to estimate catchability indices is considered biased as no cod discards are

considered in the analyses due to lack of precise data. Discards of cod of the major TR1 gear range between 10-20 % in weight of the catch in recent years but higher levels were observed in earlier periods.

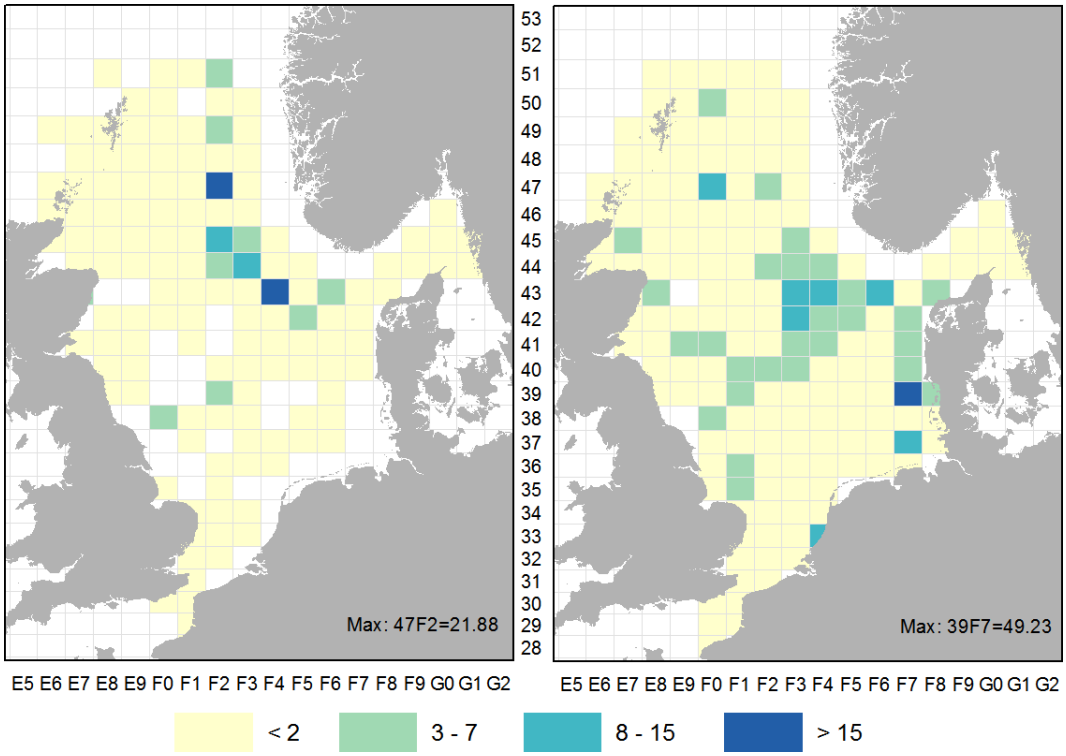


Fig. 5.3.13.3.1. Average cod catchability (ln(LPUE)/(ln(NS IBTS Q1 index)) of all regulated gear groups per rectangle in 2013 (left panel) and averaged for the period 2008-2012 (right panel).

Despite the scattered patterns it appears that cod catchability is not evenly distributed over the North Sea. The area of lowest cod catchability is generally found where cod abundance is highest, i.e. around the Shetlands in the northern North Sea, the Skagerrak and the Eastern Channel. On average, higher cod catchability is indicated in the central North Sea characterized by low cod abundance (Fig. 5.3.13.3.1). An inverse correlation between catchability of North Sea cod and abundance has also been found by Houghton and Flatman (1981).

5.4 West of Scotland effort regime evaluation in the context of Annex IIA to Council Regulation (EC) No 57/2011)

5.4.1 ToR 1.a Fishing effort in kWdays, GTdays, kW and number of vessels by Member State and fisheries

According to the data provided by Member States in 2014 aggregated by categories in Coun. Reg. (EC) 1342/2008 (cod plan) the fishery West of Scotland is primarily an otter trawl fishery; beam trawls and static gears are hardly used. Longline gears are the second most important gear category; but still much less important in terms of effort than trawl gears. Spanish data has been provided for 2012 and 2013 only. The Spanish effort represents 3.6% of large mesh trawl (TR1) effort and 47% of longline effort in 2012 and 2.6% of large mesh trawl (TR1) effort and 39.2% of longline effort in 2013. Table 5.4.1.2 shows the percentage change in effort totals supplied by Member States compared to data submitted in 2013 (and as available on the STECF website). The only changes in effort totals supplied by Member States were associated with Irish dredge, pelagic trawl, pots and TR1 gears.

In terms of kWdays the overall nominal effort in ICES division VIa displays a decrease of 41% since 2003. The majority of that reduction took place between 2003-2006 and 2009-2011. Effort within regulated gears is 58.8% less in 2013 compared to 2003. Regulated effort by trawl and seine gears (TR gears under Coun. Reg. (EC) 1342/2008) shows a long term decrease in effort and fell to its lowest level in the time series in 2011, but was stable between 2011 and 2013 for those nations reporting in both years, (Table 5.4.1.3 and Figure 5.4.1.1). With Spanish data only available for 2012 and 2013 for this area the trend in long line (LL1) effort is uncertain.

Within the trawl gear categories it can be seen from Figure 5.4.1.2 that effort is only significant in categories TR1 and TR2. TR3 effort is very low (with no effort recorded in 2010; Table 5.4.1.3). There is a clear contrast in effort trend between the TR1 and TR2 categories; effort using TR1 gears declined markedly between 2003 and 2006, was relatively stable from 2006 to 2009 before falling again. Up to 2010 patterns of effort decline or stability were similar between the TR1 and TR2 gears, but effort by TR2 gears stabilised in 2011 and there has been an increase from 2011 to 2012. In 2013 TR1 gears stabilised, whereas effort related to TR2 gears declined to its lowest level.

Five years of data are now available regarding TR effort under articles 11 and 13 of Coun. Reg. (EC) 1342/2008. Effort under article 11 is classified as unregulated (exempt) so Figure 5.4.1.3 does not include effort with CPART11. The figure shows a sharp decline in TR1 ‘none’ effort in 2009, but this was more than compensated for by effort now categorised under CPART13 leading to a small increase in overall TR1 effort. Effort under TR1, CPART13 increased again in 2010 but the fall in ‘none’ effort was bigger. Effort in the ‘none’ category has increased in 2013 along with an increase in effort under CPART13 also and this has led to an increase in overall TR1 effort. Effort under CPART13B is chiefly from the French saithe fishery in 2012. Effort under this category in 2013, as with 2012, is greater than that of category CPART13D (fishing conducted west of a line known as the West of Scotland line).

Figure 5.4.1.4 shows a very large decline in TR2 ‘none’ effort in 2009 which was bigger than the effort recorded for TR2, CPART13 in 2009. Effort by vessels not qualifying for special condition has remained stable since. Vessels transferred from CPART13 to CPART11 in 2010 but there was also an overall reduction in effort. There was a considerable increase in effort assigned to CPART13C in 2012 leading to an overall increase in regulated TR2 effort. Effort assigned to CPART13C again increased in 2013, as a

result of allocation of Scottish vessels from CPART13B to CPART13C. However, overall TR2 effort declined.

Unregulated effort comprises: a) effort not assigned to a regulated gear type; b) effort where a special condition allows a vessel to be exempted from effort control (west of Scotland only special condition CPART11 applies to date). Effort not assigned to a regulated gear type comprises 1) mesh size groups 32-54mm and 55-69mm targeting pelagic resources, 2) effort where mesh size was not identified in the data provided, 3) unregulated gear types such as pots and dredges. Figure 5.4.1.5 illustrates the importance of unregulated gear effort within the area. Between 2004 and 2010 total effort recorded for unregulated gears has been close to that for regulated gears (slightly greater between 2004 and 2006) while following a similar trend. Unregulated effort has been increasing since 2010, and has exceeded regulated effort since 2011 and the difference has increased again in 2013. Whilst effort of unregulated gears fell by 22% in 2012 compared to 2003, 2013 only saw a 7% reduction compared to 2003 (Table 5.4.1.3). Table 5.4.1.4 and Figure 5.4.1.6 show trends in unregulated effort by gear type. Very small quantities of effort under TR1, CPART11 are recorded except in 2012 and 2013 (doubling of Irish effort and addition of French effort under this category). From 2010-2012 approximately 1m kWdays was recorded each year under TR2, CPART11, this has dropped to around 855 000 kWdays in 2013. Pelagic trawl is the most significant unregulated category, but has also contributed most to the long term decline in unregulated effort.

Tables showing effort in terms of gross tonnage days at sea (GT*days at sea) and number of vessels by derogation are presented below. It should be noted that to record an annual number of vessels the maximum number from any of the four quarters within the year is chosen. Because vessels are not necessarily assigned exclusively to a single derogation, some multiple counting may occur if summing across derogations.

Table 5.4.1.1 West of Scotland. Trend in nominal effort (kW*days at sea) by derogations existing in Appendix 1 of Annex IIA of Coun. Reg. 39/2013 and Member State, 2003-2013. Derogations are sorted by gear type and country

REG GEAR	SPECON	COUNTRY	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
BT1	**NONE**	FRA	1519	15327									
		SCO	60295	151480	119958	81194	1803						
BT2	**NONE**	BEL	19005	18103	8566	4415	2356						
		ENG	1274	12067	1810								302
		FRA	25827	34218									
		IRL		28827	5068	6335							6660
GN1	**NONE**	ENG	471808	309423	201100	23028	36174		13832	2540		765	
		FRA	130216	169758	145478	129344	230271	572425	572425	294925	241877	206263	178288
		GER	113084	79545	26780			37334	29088	36132	21816	21446	29492
		IRL	19967	20763	192	3554	13346	9949	3275	551	2075	75	12590
		NIR						3564					
		SCO	47095	66913	38855	1044	553	6155			11972	6628	6791
GT1	**NONE**	IRL			12000	448					359		64
		SCO	636	435									
LL1	**NONE**	ENG	370933	459841	317428	284497	325325	28103				4415	130192
		FRA				163130	445344	277750	277750	189072	172250		110
		IRL	7200	18400	3000		9750			1397	7470	3471	2082
		NIR			1574								
		SCO	124695	148430	306947	371404	518888	378736	703396	723065	694992	518307	305940
		SPN										460307	375991
TR1	**CPART13B**	FRA										1734176	1907198
		GER								4530		1103	
		SCO							113760	102762	443735	4566	
	CPART13C	IRL							117484	108034	17295	12836	183
		SCO							217928	358116	519551	707987	873638
	CPART13D	IRL							253879	347386	206350	27041	31825
		SCO							1897026	1855833	1116540	1383078	1193424
	FDFIIA	SCO								126775	402802	424177	132363
	NONE	ENG	319445	145914	85851	48469	8711	17020	24446	14062	12979	5327	4230
		FRA	6010785	5807538	6038254	5193815	5058616	4486887	4482329	3469228	2149300	16870	574
		GER	19191	12530	35586	27897	23652	3060	4854	2427			
		IOM										284	
		IRL	496439	316477	308681	325597	530740	435661	179594	298286	126436	17853	72426
		NIR	338394	162967	87191	29352	33609	38029	45378	23860	3160		11788
		SCO	5722625	4502156	2635380	2099673	1986483	1990144					
		SPN										162834	133226
TR2	**CPART13B**	SCO							3733406	2494409	2462700	1905142	
	CPART13C	SCO							792028	237022	174669	1517753	2874809
	NONE	BEL				1766	795			1176			
		ENG	106861	66311	57345	63616	58724	87267	15721	14802	21642	64875	62793
		FRA	43098	12350			883	269645	274203				
		IOM	181	1172	181	894		649					
		IRL	1130195	977557	767211	712325	388727	205082	17989	9135	17461	18797	11935
		NED									5464	884	
		NIR	281887	353511	350269	454128	757758	654124	524483	878592	948262	806188	600828
		SCO	5760703	5334038	4586665	4381098	4693561	4808599					
TR3	**NONE**	DEN	156570	98707		11520							
		IRL	2198		342	160	317	11321	1323		5915	2503	600
		NIR		317									
		SCO	29877	6880	41202		256					6535	21693
Total reg gears			**21812003**	**19331955**	**16182914**	**14418703**	**15126642**	**14321504**	**14295597**	**11594117**	**9787072**	**10042486**	**8982035**
	NONE	DEN	66029	289874	172142	636193	132815	99889			119982	94838	44114
		ENG	763289	597101	528405	1101891	1187425	746498	870027	632396	454937	251527	599203
		FRA	434384	453248	215280	361858	354281	275460	275460	233392	235080	240408	290720
		GBJ							321		1043		
		GER	729409	767344	720815	1066842	1057879	700908	490212	430923	1094346	739578	1574941
		IOM	8144	13229	2722	9133	11285	35882	15424	7850	17371	40103	40079
		IRL	3254759	3603506	2137558	2210269	2153596	2188949	2084171	1874504	2094240	2373230	1965294
		LIT							29520		150400		
		NED	2170705	6497392	5592136	4295071	4118663	3873076	2839787	1564318	1258498	1651394	2163558
		NIR	454206	708614	496663	477364	583955	420274	285040	388615	709247	660801	787313
		SCO	8904500	9410186	8208090	5548713	4990951	4673720	5194309	5046456	4939660	5001460	4504465
LL1	**CPART11**	FRA										205044	145920
TR1	**CPART11**	FRA										319400	509390
		IRL									213774	415736	373488
		SCO								44284	20755	6192	850
TR2	**CPART11**	SCO								1055383	933604	960648	855624
Total unreg gears			**16785425**	**22340494**	**18073811**	**15707334**	**14590850**	**13014656**	**12084271**	**11278121**	**12242937**	**12960359**	**13854958**
Grand total			**38597428**	**41672449**	**34256725**	**30126037**	**29717492**	**27336160**	**26379868**	**22872238**	**22030009**	**23002845**	**22836994**

Table 5.4.1.2 West of Scotland. Relative change in nominal effort (kW*days at sea) reported by Member State compared to the data submitted in 2013; by derogations existing in Appendix 1 of Annex IIA of Coun. Reg. 39/2013.

COUNTRY	REG GEAR	VES LENGTH	2004	2005	2006	2007	2008	2009	2010	2011	2012
BEL	BT2	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	TR2	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
DEN	OTTER	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	PEL_SEINE	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	PEL_TRAWL	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	TR3	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
ENG	BT2	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	DREDGE	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	GN1	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	LL1	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	OTTER	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	PEL_TRAWL	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	POTS	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	TR1	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	TR2	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
ESP	LL1	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	TR1	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
FRA	BT1	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	BT2	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	DREDGE	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	GN1	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	GT1	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	LL1	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	OTTER	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	PEL_SEINE	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	PEL_TRAWL	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	TR1	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	TR2	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
GBJ	POTS	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
GER	GN1	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	PEL_TRAWL	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	POTS	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	TR1	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
IOM	DREDGE	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	TR1	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	TR2	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
IRL	BEAM	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	BT2	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	DEM_SEINE	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	DREDGE	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	9.3%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	GN1	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	GT1	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	LL1	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	NONE	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	OTTER	NONE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	PEL_TRAWL	NONE	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-3.7%
	POTS	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.1%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.1%
	TR1	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	9.5%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	TR2	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	TR3	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Table 5.4.1.2 (cont) West of Scotland. Relative change in nominal effort (kW*days at sea) reported by Member State compared to the data submitted in 2013; by derogations existing in Appendix 1 of Annex IIA of Coun. Reg. 39/2013.

COUNTRY	REG GEAR	VES LENGTH	2004	2005	2006	2007	2008	2009	2010	2011	2012
LIT	PEL_TRAWL	O40M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
NED	OTTER	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	PEL_TRAWL	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	TR2	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
NIR	DREDGE	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	GN1	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	LL1	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	OTTER	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	PEL_SEINE	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	PEL_TRAWL	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	POTS	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	TR1	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	TR2	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	TR3	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
SCO	BT1	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	BT2	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	DEM_SEINE	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	DREDGE	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	GN1	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	GT1	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	LL1	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	NONE	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	OTTER	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	PEL_SEINE	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	PEL_TRAWL	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	POTS	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	TR1	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	TR2	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	TR3	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Table 5.4.1.3 West of Scotland. Trend in nominal effort (kW*days at sea) by derogation as defined by Coun. Reg. 1342/2008, 2003-2013. The average of 04-06 was used as the effort baseline for the cod management plan.

REG GEAR	SPECON	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	rel chng 03	rel chng 04-06	rel chng 12
BT1	NONE	61814	166807	119958	81194	1803							-100	-100	
BT2	NONE	46106	93215	15444	10750	2356						6962	-85	-83	
GN1	NONE	782170	646402	412405	156970	280344	629427	618620	334148	277740	235177	227161	-71	-44	-3
GT1	NONE	636	435	12000	448					359		64	-90	-99	
LL1	NONE	502828	626671	628949	819031	1299307	684589	981146	913534	874712	986500	814315	62	18	-17
TR1	CPART13B							113760	107292	443735	1739845	1907198			10
	CPART13C							335412	466150	536846	720823	873821			21
	CPART13D							2150905	2203219	1322890	1410119	1225249			-13
	NONE	12906879	10947582	9190943	7724803	7641811	6970801	4736601	3807863	2291875	203168	222244	-98	-98	9
TR2	CPART13B							3733406	2494409	2462700	1905142				-100
	CPART13C							792028	237022	174669	1517753	2874809			89
	NONE	7322925	6744939	5761671	5613827	5900448	6025366	832396	903705	992829	890744	675556	-91	-89	-24
TR3	NONE	188645	105904	41544	11680	573	11321	1323		5915	9038	22293	-88	-58	147
Total reg gears		21812003	19331955	16182914	14418703	15126642	14321504	14295597	11467342	9384270	9618309	8849672	-59	-47	-8
Total unreg gears		16785425	22340494	18073811	15707334	14590850	13014656	12084271	11278121	12242937	12960359	13854958	-17	-26	7
Total		38597428	41672449	34256725	30126037	29717492	27336160	26379868	22745463	21627207	22578668	22704631	-41	-36	1

Table 5.4.1.4 West of Scotland. Trend in nominal effort (kW*days at sea) by unregulated gear, 2003-2013. The average of 04--06 was used as the effort baseline.

REG GEAR	SPECON	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	rel chng 03	rel chng 04-06	rel chng 12
BEAM	NONE		10136											-100	
DEM_SEINE	NONE	644											-100		
DREDGE	NONE	1956375	1698346	1510557	1161671	910993	1075527	1071111	1002819	912292	1374878	1223113	-37	-16	-11
NONE	NONE	52102	26858	42249	50920	63504	68847	99379	99562	98890	118429	100063	92	150	-16
OTTER	NONE	188521	514624	654988	290706	41340	151972	171586	95489	345660	313347	286144	52	-41	-9
PEL_SEINE	NONE	251947	266254	157776	186486	113645			53255	128000			-100	-100	
PEL_TRAWL	NONE	11673697	17106281	12924636	11287883	10022299	8781704	7785023	5592818	6726463	6652975	7892841	-32	-43	19
POTS	NONE	2662139	2717995	2783605	2729668	3439069	2936606	2957172	3334511	2863499	2593710	2467526	-7	-10	-5
LL1	CPART11										205044	145920			-29
TR1	CPART11								44284	234529	741328	883728			19
TR2	CPART11								1055383	933604	960648	855624			-11
Grand Total		16785425	22340494	18073811	15707334	14590850	13014656	12084271	11278121	12242937	12960359	13854958	-17	-26	7

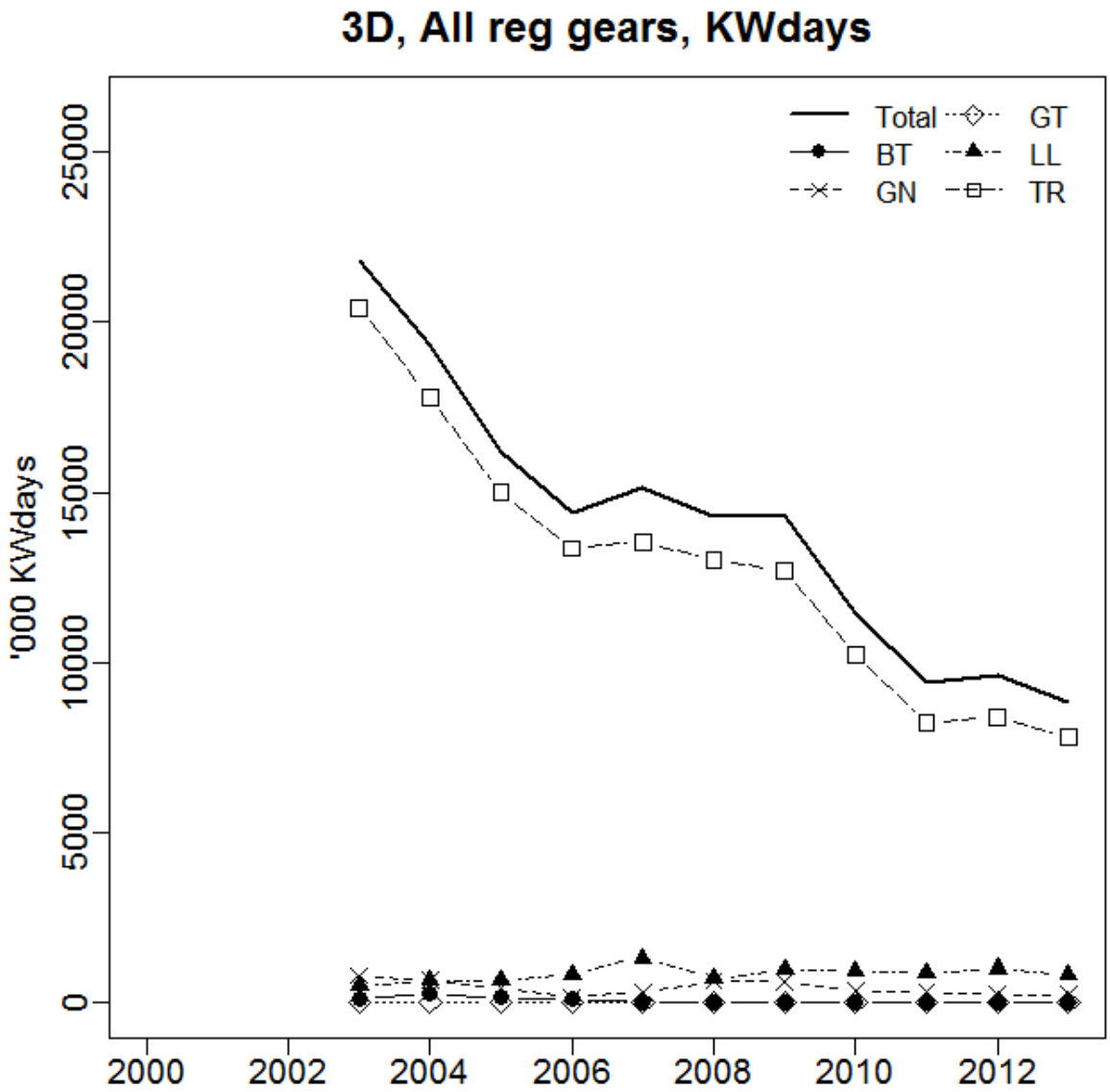


Figure 5.4.1.1 West of Scotland. Trend in nominal effort (kW*days at sea) by gear types as defined by Coun. Reg. 1342/2008, 2003-2013. Values exclude effort in categories exempted from effort control (CPart11).

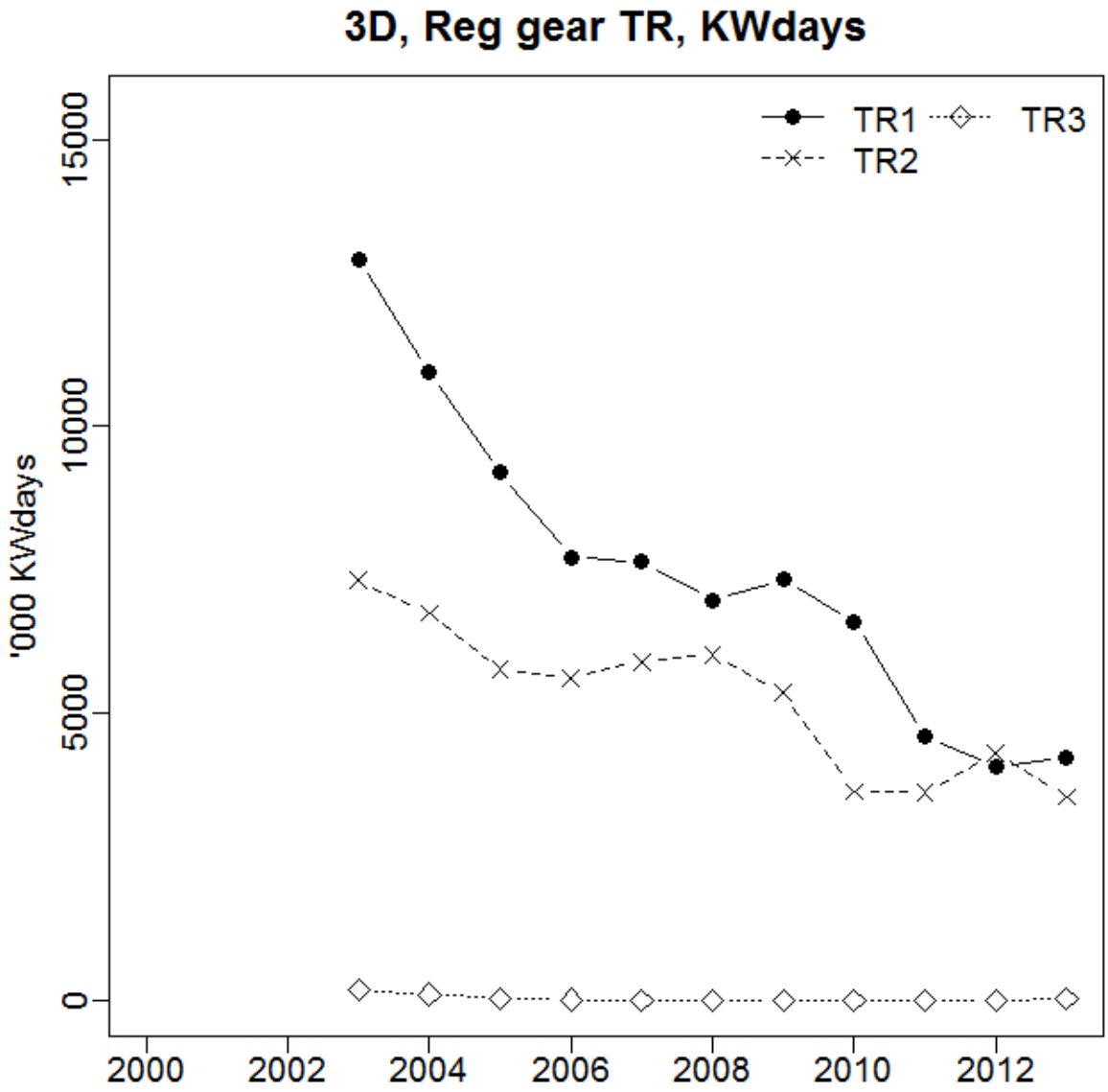


Figure 5.4.1.2 West of Scotland. Trend in nominal effort (kW*days at sea) by TR gear groups as defined by Coun. Reg. 1342/2008, 2003-2013. Values exclude effort in categories exempted from effort control (CPart11).

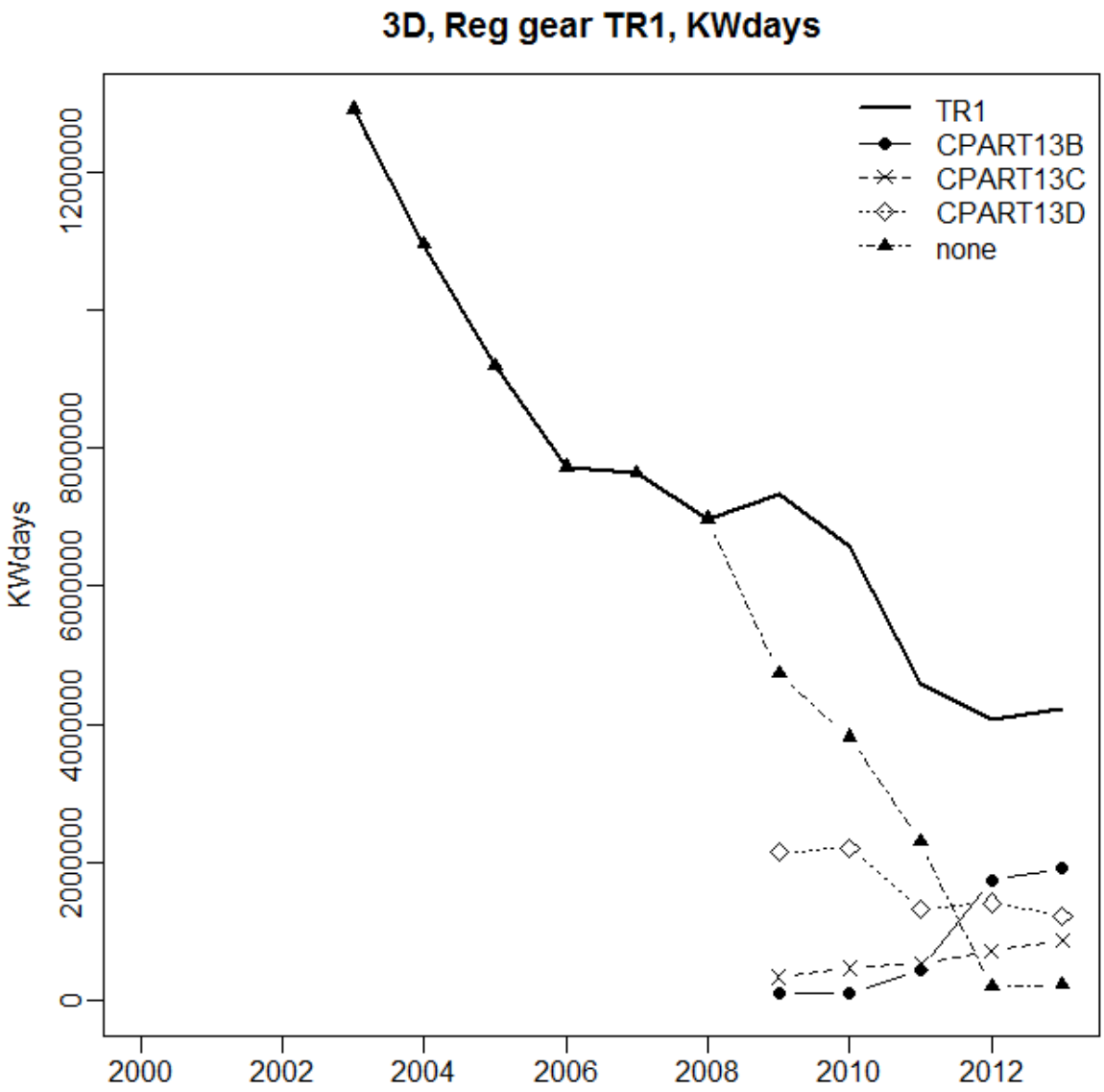


Figure 5.4.1.3 West of Scotland. Trend in nominal effort (kW*days at sea) by specon for regulated gear TR1. Line labelled TR1 represents the sum of the other lines. Categories exempted from effort control (CPart11) excluded.

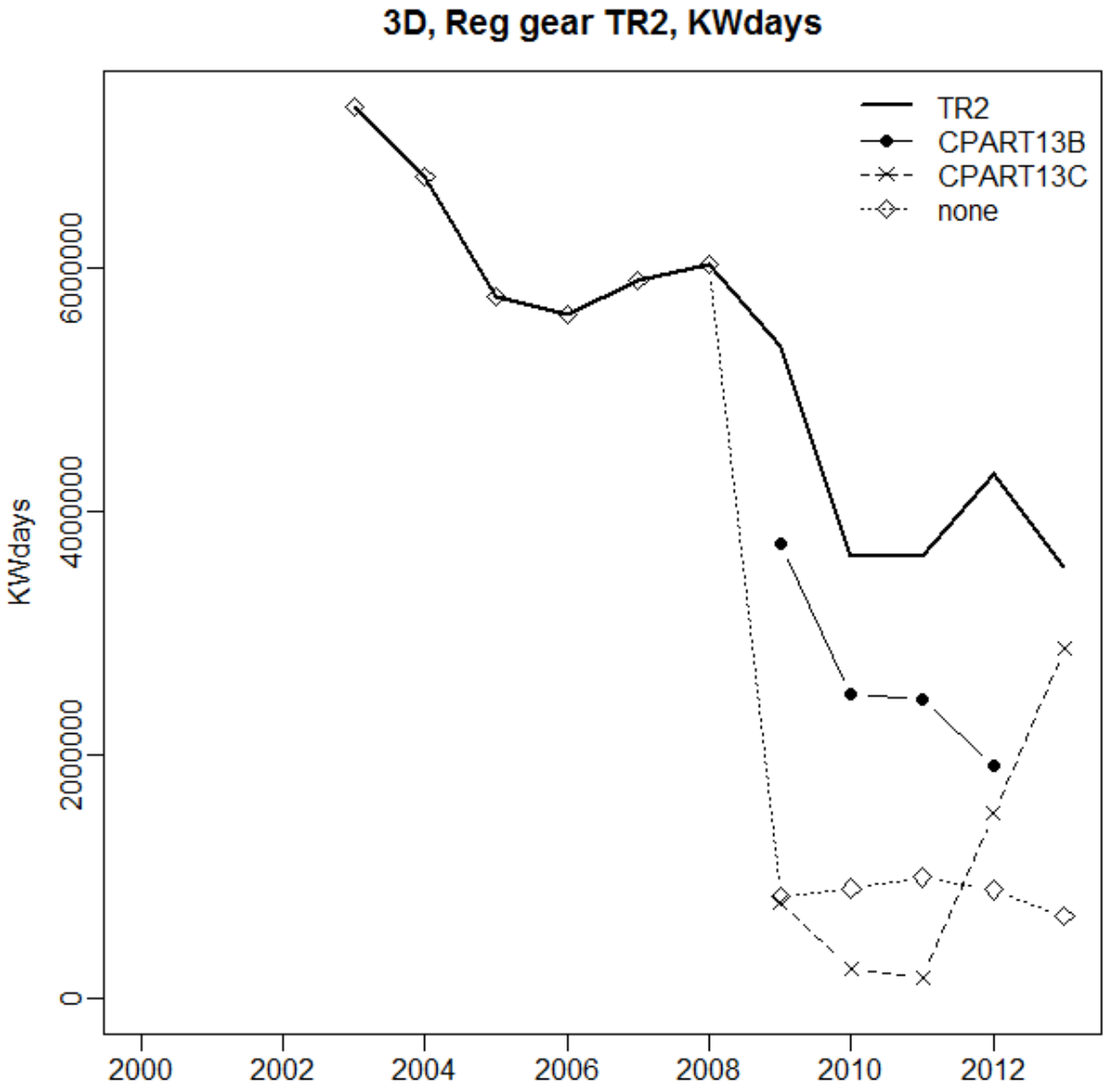


Figure 5.4.1.4 West of Scotland. Trend in nominal effort (kW*days at sea) by specon for regulated gear TR2. Line labelled TR2 represents the sum of the other lines. Categories exempted from effort control (CPart11) excluded.

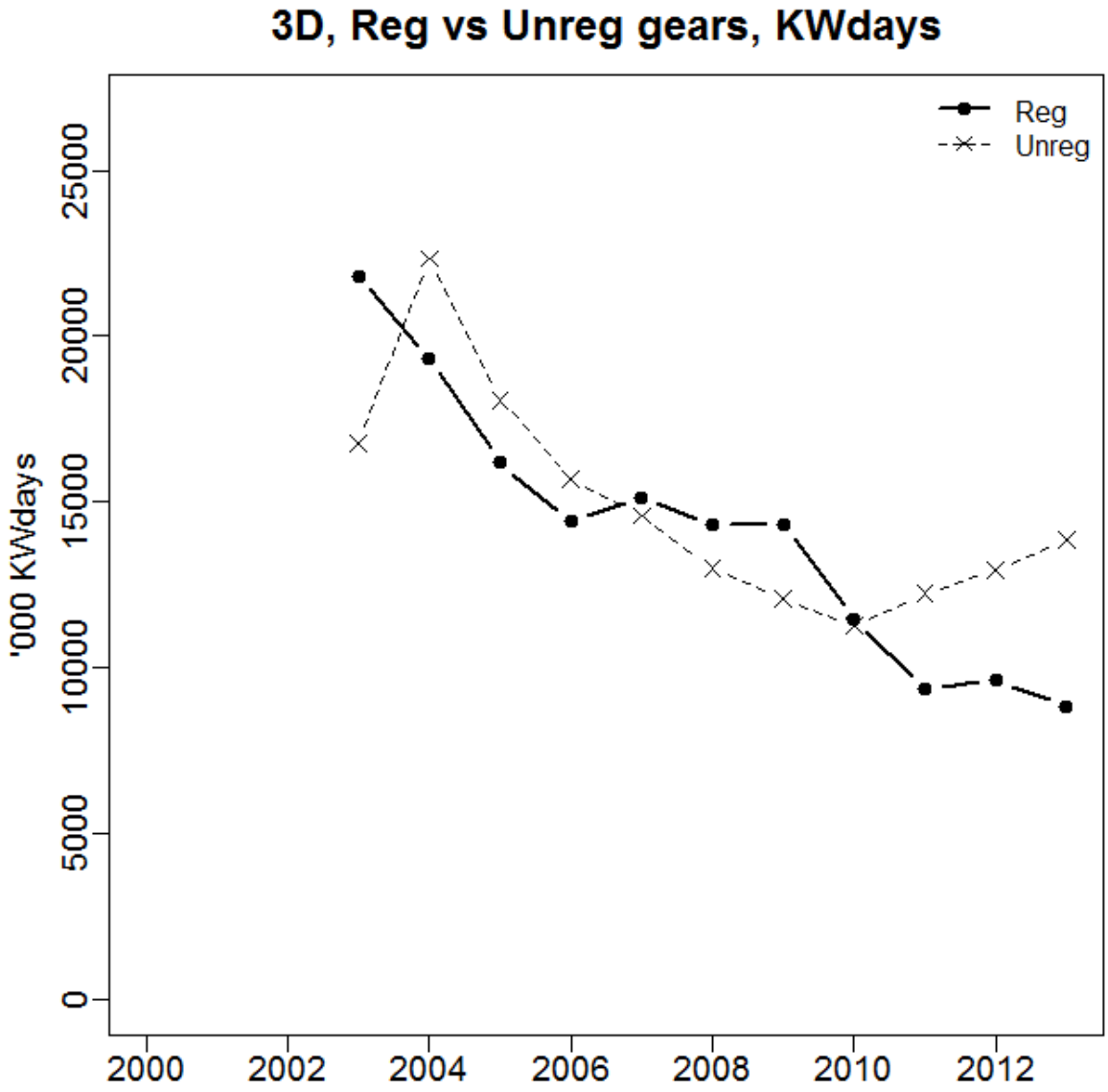


Figure 5.4.1.5 West of Scotland. Trend in nominal effort (kW*days at sea) by regulated gear groups (combined) as defined by Coun. Reg. 1342/2008 compared to unregulated gear groups (combined), 2003-2013. Unregulated effort includes gears with special conditions that exempt them from effort control (TR1 and TR2 with specon CPART11).

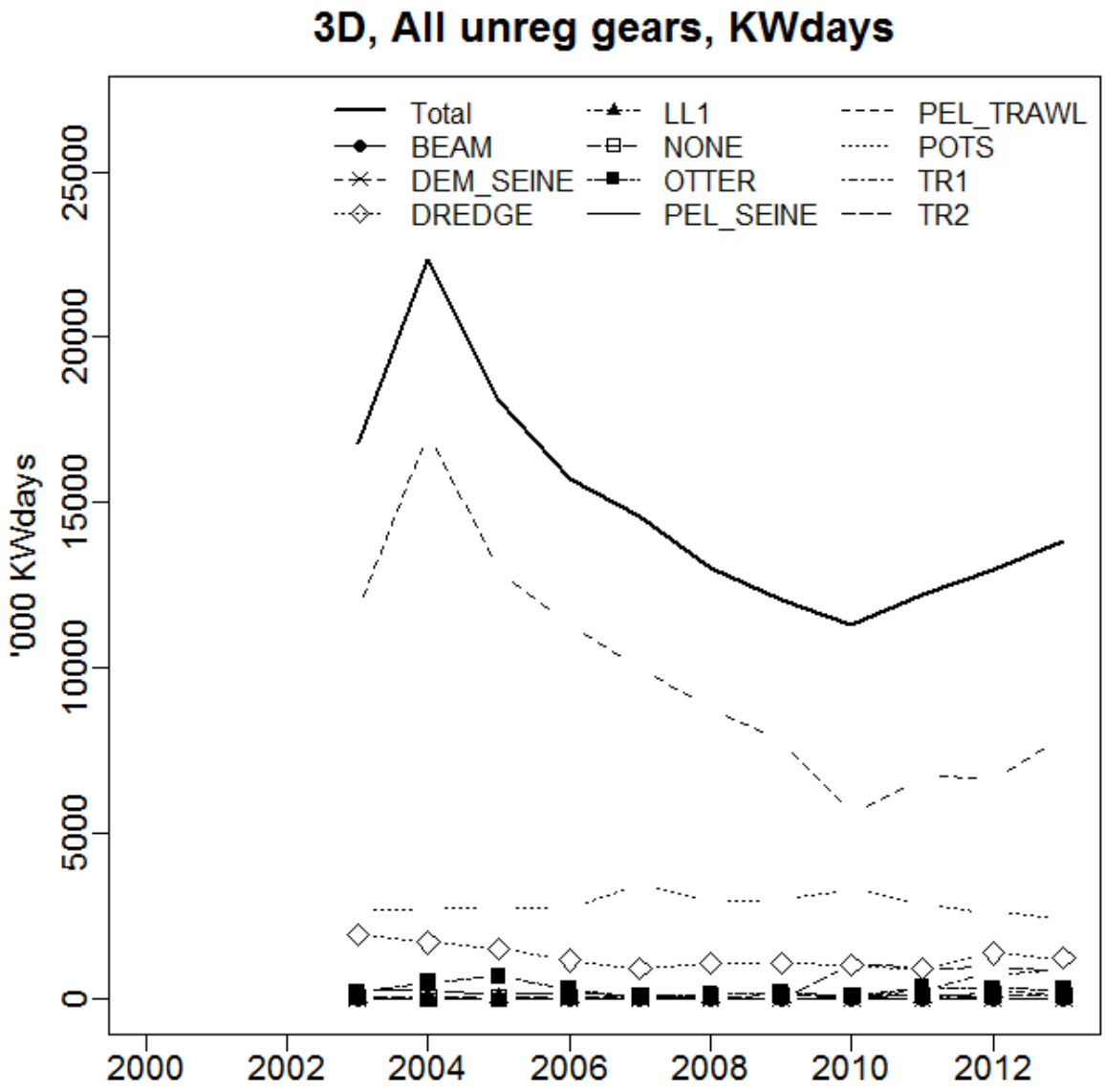


Figure 5.4.1.6 West of Scotland. Trend in nominal effort (kW*days at sea) by unregulated gear groups, 2003-2013. Unregulated effort includes gears with special conditions that exempt them from effort control (TR1 and TR2 with specon CPART11).

Information on trends in GT*days at sea and in the number of vessels active in the West of Scotland are presented in tables 5.4.1.5 and 5.4.1.6 respectively.

Table 5.4.1.5 – West of Scotland – 3d - Trends in GT*days at sea by existing derogations, 2004-2013. Derogations are sorted by gear, special condition, and country (o. 10m length vessels).

REG GEAR	SPECON	COUNTRY	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
BEAM	**NONE**	IRL	2848									
BT1	**NONE**	FRA	5312									
		SCO	50073	44550	31348	1181						
BT2	**NONE**	BEL	6501	3157	1430	732						
		ENG	6911	1037								136
		FRA	14045									
		IRL	8157	1424	1780							2043
DEM_SEINE	**NONE**	SCO										
DREDGE	**NONE**	ENG	6488	9224	11959	7016	5605	4299	1228	5184	14992	2276
		FRA	99									
		IOM	2294	522	1954	2461	7525	2728	2545	4884	10190	9917
		IRL	6130	168	128	5715	2196			108	1578	95
		NIR	10289	7283	3074	5144	5013	13179	5225	1004	44671	19225
		SCO	329987	304292	231793	179578	225636	218065	212289	203408	282807	265143
GN1	**NONE**	ENG	129720	98841	12483	16707		7467	1371		413	
		FRA	68310	58531	49871	90384	230897	230897	121133	98682	85066	67586
		GER	36850	12730			16615	13176	16573	9882	9715	13359
		IRL	9740	44	777	3676	2812	957	96	323	15	3251
		NIR					369					
		SCO	47224	25230	289	87	826			6427	2737	3444
GT1	**NONE**	IRL		3315	88					51		15
		SCO	121									
LL1	**CPART11**	FRA									77824	55264
	NONE	ENG	237890	193945	175546	177134	14473				2539	67743
		ESP									331659	279502
		FRA			72269	171260	108491	108491	72090	65242		4
		IRL	8188	1335		7770			298	1453	726	412
		NIR		193								
		SCO	101144	182746	215188	287477	204145	322112	351533	351920	271046	166654
NONE	**NONE**	IRL					42		197		5479	2978
		SCO	4668	6677	5821	7424	12136	18371	19398	19294	18566	15240
OTTER	**NONE**	ENG	7476	4844	11478	7792	4126	11158			2124	452
		FRA								35763	74529	38766
		IRL	61027	3858	328	2737	9593	5626	7359	29925	732	
		NED										
		NIR	3155		195	131		450	89		65	3443
		SCO	158279	229293	98120	8897	49173	55658	27532	53002	40099	62427
PEL_SEINE	**NONE**	DEN										
		FRA										
		NIR	90405	54004	63320	38588			12580	50320		
		SCO							10248			
PEL_TRAWL	**NONE**	DEN	138393	77211	263116	63195	45890			53653	48635	22669
		ENG	287709	171206	645267	579380	464559	519793	293705	197990	74640	356534
		FRA	358166	156986	265084	274800	208028	208028	248284	149258	32746	182364
		GER	1060550	984820	1472970	1391100	855725	602788	418677	1207714	906795	1831722
		IRL	1537241	914681	904673	805111	938838	919822	732002	835008	980411	833170
		LIT						28497		149507		
		NED	6089478	5166292	4002474	3766189	3534630	2381472	1398785	1071985	1655420	2229091
		NIR	91820	40008	41640	51871	46474	27688	60183	112712	125560	190458
		SCO	2268589	1688646	923161	767036	579182	696451	608540	712240	647361	521716
POTS	**NONE**	ENG	66754	107014	65057	163808	29768	36841	40267	38723	30361	25045
		GBJ						102		333		
		GER		5160	4560	21770	7562	2587	25355	9333		769
		IRL	350009	324834	255039	281358	237577	194407	196772	143480	99472	108625
		NIR	53206	57793	45952	83533	66658	30929	38607	80293	38918	43296
		SCO	290678	291877	321080	361243	340448	382410	427486	363547	364382	341314

Table 5.4.1.5 cont. – West of Scotland – 3d - Trends in GT*days at sea by existing derogations, 2004-2013. Derogations are sorted by gear, special condition, and country (o. 10m length vessels).

REG GEAR	SPECON	COUNTRY	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
TR1	**CPART11**	FRA									154006	257040
		IRL								90101	173946	150006
		SCO							11432	5367	1625	247
	CPART13B	FRA									920435	949255
		GER							2259		460	
		SCO						43544	37290	169538	1257	
	CPART13C	IRL						47408	42521	6979	5307	75
		SCO						65040	130450	203409	274570	345826
	CPART13D	IRL						111598	149776	89498	10661	12591
		SCO						811206	797296	507315	624767	540014
	NONE	ENG	61428	39662	20068	3477	6747	8938	5002	4577	1890	1501
		ESP									151265	109850
		FRA	2242488	2279838	1935378	1893901	1658107	1655998	1770792	1114422	7731	277
		GER	8540	23420	14650	13340	1275	3194	1597			
		IOM									113	
		IRL	138416	151851	136497	212636	182886	70019	121513	51717	6267	29076
		NIR	55697	27443	9251	11791	12549	13213	8150	1103		4303
		SCO	1858886	1102686	855842	810330	807959					
TR2	**CPART11**	SCO							245719	215354	216840	192018
	CPART13B	SCO						907450	621769	643190	457344	
	CPART13C	SCO						215984	54728	49228	518898	762981
	NONE	BEL			572	273			386			
		ENG	18264	14079	15973	12427	19654	4076	3527	5451	17844	13091
		FRA	4236			322	104560	106669				
		IOM	204	3	248		4					
		IRL	367114	311971	291071	149987	78041	6561	3163	5809	6828	5316
		NED								1664	432	
		NIR	97193	96417	122558	210217	184240	144082	242409	266988	223706	174672
		SCO	1284871	1085508	1034618	1112761	1179125					
TR3	**NONE**	DEN	47735		5130							
		IRL		144	34	127	7132	522		1713	730	166
		NIR	76									
		SCO	2134	12010		82					1861	6998
Total			**20193206**	**16378803**	**14641202**	**14063956**	**12497291**	**11259951**	**9600226**	**9496071**	**10061056**	**11321451**

Table 5.4.1.6 – West of Scotland – 3d - Trends in number of vessels by existing derogations, 2004-2013. Derogations are sorted by gear, special condition, and country (o. 10m length vessels).

REG GEAR	SPECON	COUNTRY	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
BEAM	**NONE**	IRL	1									
BT1	**NONE**	FRA	1									
		SCO	2	1	1	1						
BT2	**NONE**	BEL	2	1	1	1						
		ENG	2	1								2
		FRA	4									
		IRL	2	1	1							1
DEM_SEINE	**NONE**	SCO										
DREDGE	**NONE**	ENG	3	4	4	3	5	2	1	3	7	2
		FRA	1									
		IOM	3	2	4	3	4	5	2	4	7	3
		IRL	3	1	1	2	1			1	1	1
		NIR	5	5	2	3	3	6	6	5	11	6
		SCO	63	63	61	43	39	45	41	40	47	49
GN1	**NONE**	ENG	4	2	1	2		1	1		1	
		FRA	2	6	5	7	22	17	5	5	5	4
		GER	3	1			2	1	2	1	1	1
		IRL	3	1	3	5	5	4	2	2	1	4
		NIR					1					
		SCO	3	3	1	2	2			1	1	1
GT1	**NONE**	IRL		1	1					1		1
		SCO	1									
LL1	**CPART11**	FRA									2	2
	NONE	ENG	6	4	5	6	2				1	3
		ESP									8	10
		FRA			16	30	25	25	3	2		1
		IRL	1	1		1			6	12	6	4
		NIR		2								
		SCO	4	3	6	7	7	13	12	9	7	4
NONE	**NONE**	IRL					1		1		5	2
		SCO	5	6	4	8	8	7	7	9	8	12
OTTER	**NONE**	ENG	1	1	3	1	1	1			1	1
		FRA								2	2	1
		IRL	5	2	3	2	2	2	5	7	1	
		NED										
		NIR	1		1	1		1	1		1	2
		SCO	15	9	14	8	8	15	11	6	11	11
PEL_SEINE	**NONE**	DEN										
		FRA										
		NIR	1	1	1	1			1	1		
		SCO							1			
PEL_TRAWL	**NONE**	DEN	6	4	11	4	2			1	2	2
		ENG	2	2	3	2	3	4	4	3	4	3
		FRA	28	14	14	17	17	17	2	1	2	3
		GER	4	3	4	4	3	3	3	4	2	4
		IRL	40	30	40	42	41	39	48	50	52	49
		LIT						1		1		
		NED	11	13	9	8	9	6	6	5	7	7
		NIR	3	3	3	3	3	3	3	3	3	3
		SCO	30	24	23	18	20	18	21	20	18	20
POTS	**NONE**	ENG	4	5	4	7	3	4	3	5	4	3
		GBJ						1		1		
		GER		1	1	1	1	1	2	1		1
		IRL	13	11	24	35	33	33	34	32	31	30
		NIR	5	4	4	6	7	6	6	4	5	6
		SCO	71	74	81	84	77	78	83	85	75	73

Table 5.4.1.6 cont. – West of Scotland – 3d - Trends in number of vessels by existing derogations, 2004-2013. Derogations are sorted by gear, special condition, and country (o. 10m length vessels).

REG GEAR	SPECON	COUNTRY	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
TR1	**CPART11**	FRA									2	6
		IRL								5	5	5
		SCO							2	2	2	2
	CPART13B	FRA									5	5
		GER							2		1	
		SCO						8	7	8	2	
	CPART13C	IRL						9	8	7	3	1
		SCO						7	7	16	15	37
	CPART13D	IRL						11	12	14	5	6
		SCO						42	33	24	29	27
	NONE	ENG	7	3	2	1	1	1	1	1	1	1
		ESP									4	3
		FRA	158	132	162	105	87	72	13	11	3	1
		GER	2	2	2	1	1	1	1			
		IOM									1	
		IRL	7	14	12	15	17	13	17	16	7	8
		NIR	17	15	8	5	6	5	4	1		1
		SCO	53	39	38	36	39					
TR2	**CPART11**	SCO							43	42	42	39
	CPART13B	SCO						131	83	81	65	
	CPART13C	SCO						26	10	9	71	99
	NONE	BEL			1	1			1			
		ENG	7	3	5	6	8	3	3	6	8	6
		FRA	3			1	7	7				
		IOM	2	1	1		1					
		IRL	27	28	19	22	16	6	5	5	4	5
		NED								1	1	
		NIR	28	26	36	34	28	32	60	71	73	53
		SCO	138	111	117	111	115					
TR3	**NONE**	DEN	2		1							
		IRL		1	1	1	2	1		3	2	1
		NIR	1									
		SCO	4	3		1					3	1
Grand Total			**820**	**688**	**765**	**708**	**685**	**734**	**635**	**650**	**694**	**639**

5.4.2 ToR 1.b and c Catches (landings and discards) of cod and non-cod species in weight and numbers at age by fisheries

Tables showing the discards and landings for cod, demersal and pelagic species were not produced due to time constraints imposed by the data processing problems detailed at the beginning of the report. These data are available on the JRC website http://stecf.jrc.ec.europa.eu/web/stecf/ewg1413.

Figure 5.4.2.1 displays the relative catch compositions by derogations for the years 2004-2013. Discard information on Nephrops for any gear and for all other species for non-trawl gears was not available for this report. Therefore the lack of the dark bars representing discards in these figures indicates a lack of observations for non-trawl gears and a lack of information for Nephrops rather than an absence of discards.

A description of the catch compositions of the derogations relevant to the area follows:-

TR1 -- The main species caught are haddock, saithe and anglerfish. The catches of hake have been steadily rising. The landings of both hake and anglerfish now well exceed those of cod; the landings of the latter reflect the steady reduction in the cod TAC followed by the introduction in 2012 of a zero TAC but 1.5% landings by-catch allowance. Catches of cod have remained much higher than landings because of increased discards.

TR2 – Landings are dominated by Nephrops. Considering landings across all gear categories this species contributes the greatest contribution to landings among the demersal species. By-catch of the finfish occur with historically high discard rates of haddock and whiting, however whiting catches are recorded as low in recent years.

TR3 – Landings for this gear category are negligible for this region.

GN1 – This category lands anglerfish, hake and saithe. The landings of hake and saithe increased rapidly to 2008 but the overall quantities are still small.

LL1 – The longline fishery lands hake almost exclusively. Landings of hake are up to 6 times that from the gillnet fishery. The large increase in hake landings by this gear category between 2011 and 2012 is because of the addition of Spanish data for 2012 (landings by nations other than Spain decreased by approx. 500 tonnes). Spanish landings are unknown for earlier years.

Unregulated (POTS) – Of those gears not regulated under Coun. Reg. (EC) 1342/2008 the most significant landings of the species considered come from pots – in this case Nephrops (although the gear takes numerous other species).

The overall discard rate of cod (by weight) has increased in years subsequent to 2003. This was due initially to higher discard rates in the smaller meshed category (TR2) but in 2006 the recorded discard rate for the TR1 gear group leapt from 1% to 49% (reflecting legislation successfully curtailing illegal landings). The rate of discarding in the TR1 gears has been between 70 and a little over 90% in 2008-2013. Catches of cod by TR2 ‘none’ have been negligible since 2009 but the discard rates recorded for TR2 CPART13 and CPART11 are still very high (although low sampling coverage of TR2 vessels lead to

high annual variation). It is believed the present high discard rates result from a combination of restrictive quotas, fishing opportunities for other species and year classes of cod (2005 and 2008 year classes) large enough to allow catches over and above the cod quota.

Data on age specific landings are not available this year.

It can be seen from the figures presented that landings of plaice and sole are negligible across all gear categories and in west of Scotland it is only relevant to consider age specific data for cod for this region. Also, only trawl gears catch enough cod to merit a catch at age analysis.

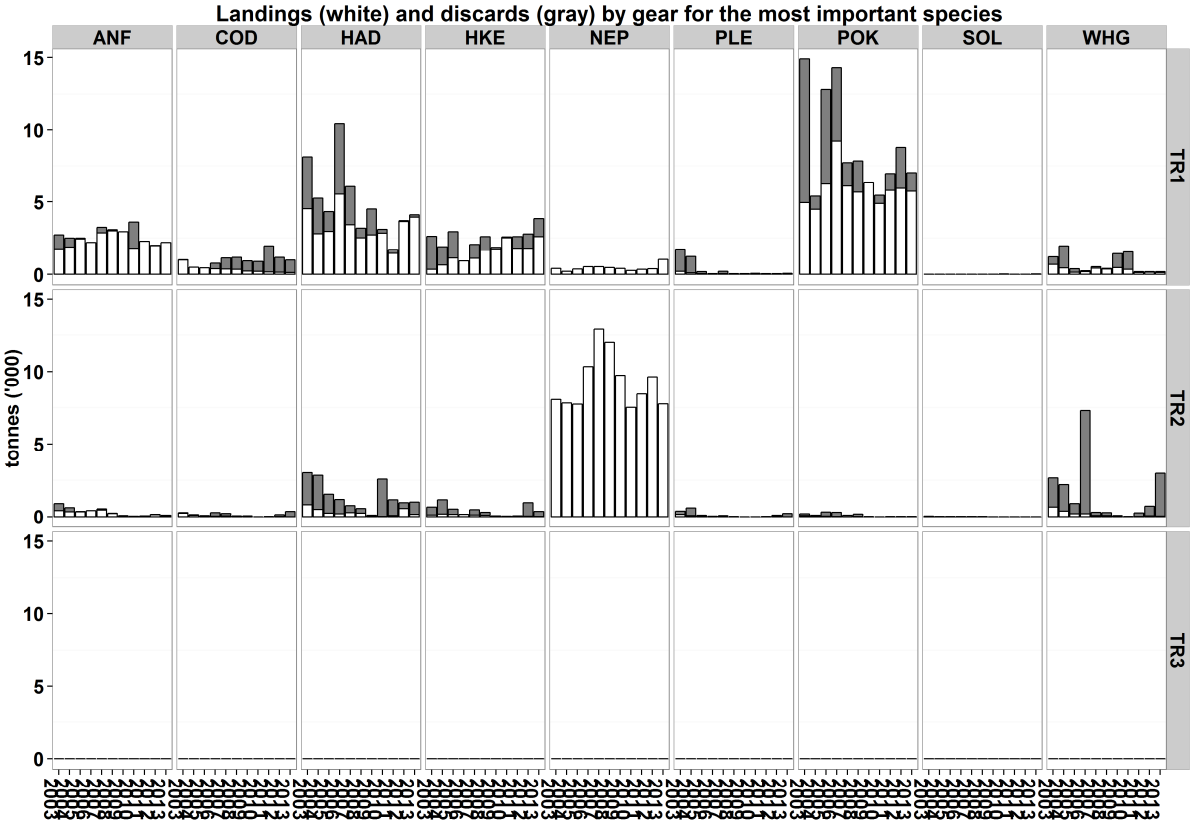


Figure 5.4.2.1 West of Scotland. Landings (t) and discards (t) by derogations in Coun. Reg. (EC) 1342/2008 and species, 2003-2013 (from left to right). White bars represent landings, grey bars discards. Note that discard data are only available for some species and gears. The lack of discard information for a given species/gear in this figure represents no information rather than zero discards.

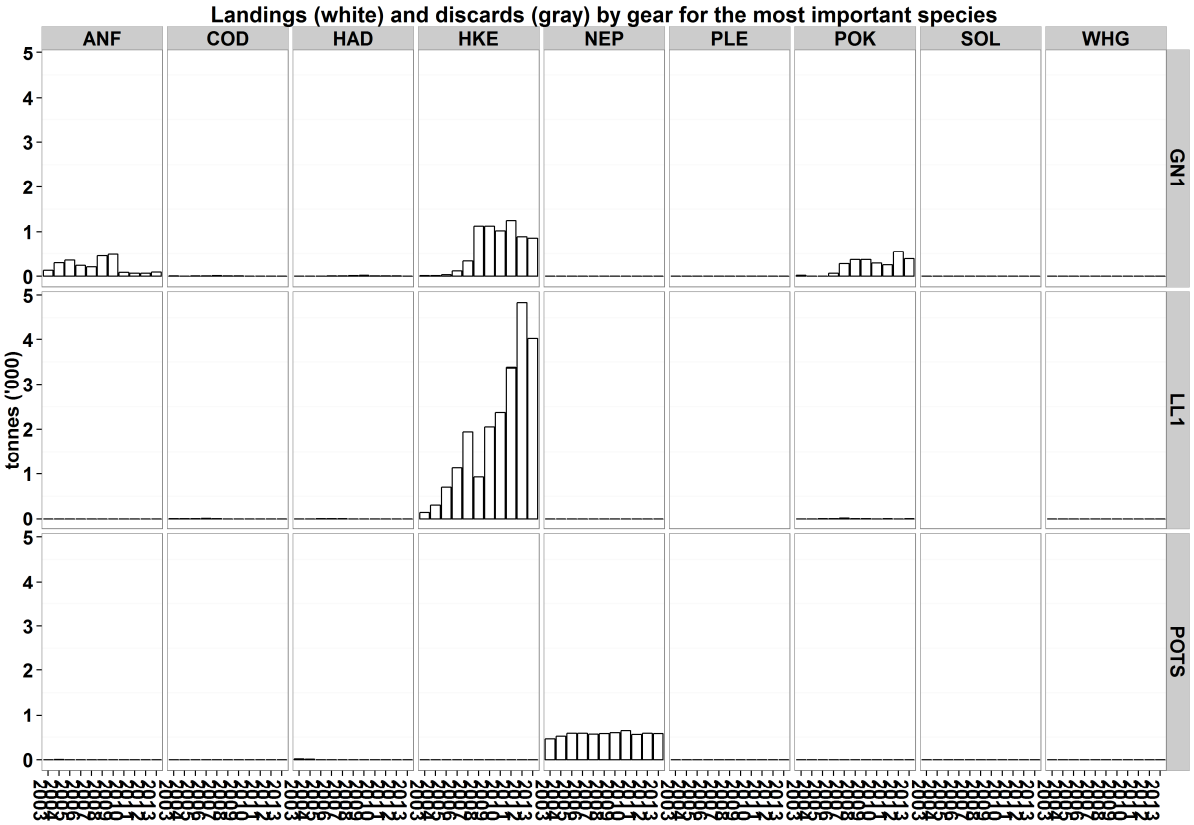


Figure 5.4.2.1 (cont) West of Scotland. Landings (t) and discards (t) by derogations in Coun. Reg. (EC) 1342/2008 and species, 2003-2013 (from left to right). White bars represent landings, grey bars discards. Note that discard data are only available for some species and gears. The lack of discard information for a given species/gear in this figure represents no information rather than zero discards.

5.4.3 ToR 1.d CPUE and LPUE of cod by fisheries and by Member States

Tables showing LPUE and CPUE by gear groups (regulated and unregulated), area and nation are not presented in this report but are available on the JRC website: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1413

Results aggregated across countries are presented below.

Table 5.4.3.1 shows cod catch per unit effort (CPUE), recorded in g/kWdays for all derogations within Coun. Reg (EC) 1342/2008 while table 5.4.3.2 shows landings per unit effort (LPUE) for the same derogations. Section 5.4.1 showed longlines to be the most significant gear category after trawl and seine gears in terms of kWdays effort west of Scotland but the tables show CPUE of cod for this gear type (LL1) to be low with no catch of cod recorded from 2008 onward. The tables clearly show TR1 gears have the highest CPUE and LPUE for cod and that TR1 with

special condition CPart13D (fishing west of the 'French Line') having the highest CPUE among the TR1 categories.

Figures 5.4.3.1 and 5.4.3.2 show cod CPUE and LPUE respectively for the top four gear types under Coun. Reg (EC) 1342/2008, ranked in terms of average value over the most recent five years. It should be noted no discard information is available for gill nets (GN1) or the beam trawl categories (BT1 and BT2) such that results for these gear types are effectively LPUE in each table and/or figure. It is clear from Figure 5.4.3.1 that CPUE values have increased considerably for the TR1 gear type since 2005. ICES assessments have estimated the 2005 – and to a lesser extent the 2008 - year classes of cod to be large compared to the norm since 2000, and also a slow increase in SSB since 2006. However, CPUE values for the TR1 gear type are reduced in 2012 and 2013 compared to 2011. Correspondingly, the CPUE values for the TR2 gear type have increased over the same time period. The pattern of CPUE is consistent with the catchability of fish in the stronger year classes increasing as the fish grow in size (and possibly redistribute from nursery areas) and an increase in overall stock abundance. TACs for cod have declined over the same period and from Figure 5.4.3.2 it can be seen LPUE for the TR1 gears remained constant between 2004, 2008 and has fallen again to a new lower level for 2009-2012.

Table 5.4.3.1 West of Scotland. Cod CPUE (g/(kW*days)) by derogation in Coun. Reg. (EC) 1342/2008 and year, 2004-2013.

SPECIES	REG_GEAR_COD	SPECON	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012	CPUE 2013	CPUE 2011 - 2013
COD	BT1	none	36	8	0		0	0	0	0	0	0	0
COD	BT2	none					0	0	0	0	0	0	0
COD	GN1	none	2	15	57	50	14	10	9	11		0	4
COD	LL1	none	8	8	17	6	0	0	0				0
COD	TR1	CPART13B	0	0	0	0	0	246	214	379	15	0	47
COD	TR1	CPART13C	0	0	0	0	0	212	176	196	186	307	238
COD	TR1	CPART13D	0	0	0	0	0	338	318	1243	708	582	848
COD	TR1	none	45	48	99	147	165	22	20	21	15	4	19
COD	TR2	CPART13B	0	0	0	0	0	11	2	2	16	0	8
COD	TR2	CPART13C	0	0	0	0	0	18	4	11	70	118	98
COD	TR2	none	19	14	48	37	11	4	1	2	1	15	5
COD	TR3	none		0		0	0		0				0

Table 5.4.3.2 West of Scotland. Cod LPUE (g/(kW*days)) by derogation in Coun. Reg. (EC) 1342/2008 and year, 2004-2013.

SPECIES	REG_GEAR_COD	SPECON	LPUE 2004	LPUE 2005	LPUE 2006	LPUE 2007	LPUE 2008	LPUE 2009	LPUE 2010	LPUE 2011	LPUE 2012	LPUE 2013	LPUE 2011 - 2013
COD	BT1	none	36	8	0		0	0	0	0	0	0	0
COD	BT2	none					0	0	0	0	0	0	0
COD	GN1	none	2	15	57	50	14	10	9	11		0	4
COD	LL1	none	8	8	17	6	0	0	0				0
COD	TR1	CPART13B	0	0	0	0	0	35	37	25	2	0	3
COD	TR1	CPART13C	0	0	0	0	0	30	30	11	17	38	24
COD	TR1	CPART13D	0	0	0	0	0	46	56	80	82	74	79
COD	TR1	none	44	47	50	47	48	21	17	21	5	4	18
COD	TR2	CPART13B	0	0	0	0	0	1	2	2	1	0	2
COD	TR2	CPART13C	0	0	0	0	0	3	4	11	4	2	3
COD	TR2	none	13	8	6	11	8	4	1	2	1	3	2
COD	TR3	none		0		0	0		0				0

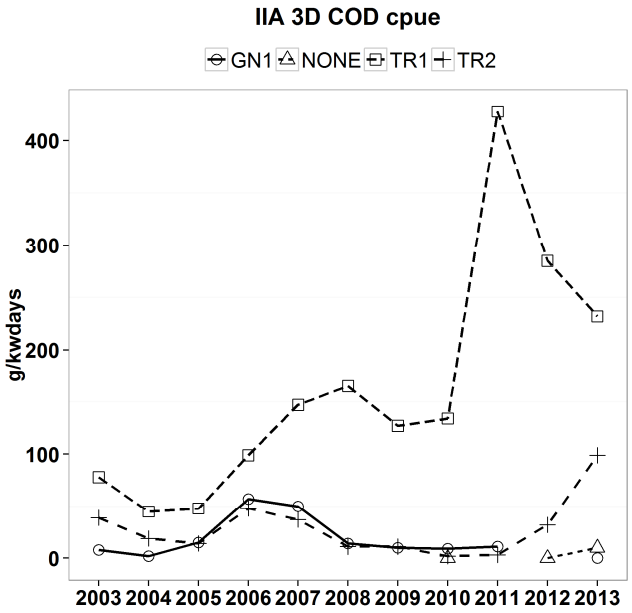


Figure 5.4.3.1 West of Scotland. Cod CPUE for the four gear categories with highest CPUE.

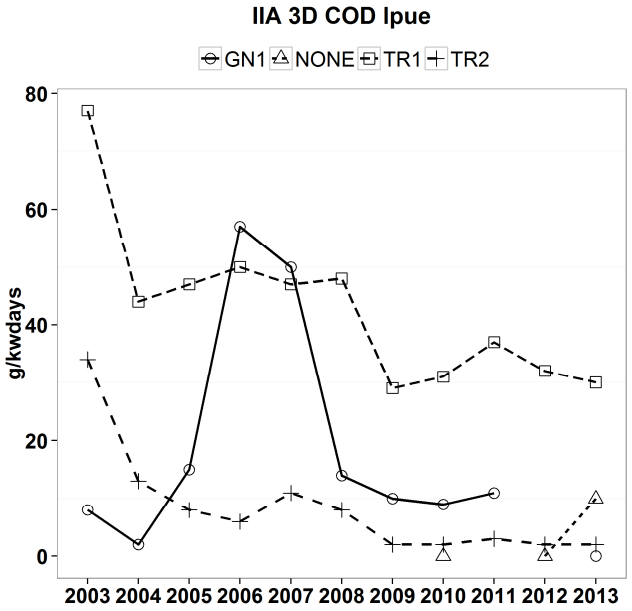


Figure 5.4.3.2 West of Scotland. Cod LPUE for the four gear categories with highest LPUE

5.4.4 ToR 2 Rank regulated gear groups on the basis of catches expressed both in weight and in number of cod

Tables 5.4.4.1 and 5.4.4.2 show, respectively, cod catch and cod landings (tonnes) by gear types as specified in Coun. Reg. (EC) 1342/2008, ranked according to their 2013 values. From these Tables the most important category in terms of cod catch and landings is TR1 with a three year average of 87-94% of the VIa cod catch – and landings - total by weight. The second most important gear category is TR2, which from section 5.4.2 can be seen to be a gear category with Nephrops as the primary landed species. The ranking of these two gear types is consistent whether the 2013 values or a three year average is used but the contribution of TR2 gear to catches has noticeably declined starting in 2008 and to landings from 2009. However, this trend reverses in 2012 and 2013 with the proportion of catches from TR2 gear increasing significantly from 2011 values. This increase is from a rise in discards and so a similar increase is not seen in the proportion of landings from the TR2 gear type. The contribution to catch from all other gear types is less than 1%, but for landings gill nets contribute between 1 and 3%.

Table 5.4.4.1 West of Scotland. Gear derogations (Coun. Reg. 1342/2008) ranked according to relative cod catch in tonnes, 2004-2013. Ranking is according to the year 2013.

ANNEX	REG_AREA	SPECIES	REG_GEAR	2004 REL	2005 REL	2006 REL	2007 REL	2008 REL	2009 REL	2010 REL	2011 REL	2012 REL	2013 REL	AVG 11-13
IIA	3D	COD	TR1	0.77676	0.82679	0.72518	0.82347	0.93773	0.93557	0.98996	0.99365	0.89290	0.73654	0.87436
IIA	3D	COD	TR2	0.20400	0.15061	0.25353	0.16062	0.05424	0.05824	0.00666	0.00459	0.10710	0.26333	0.12501
IIA	3D	COD	GN1	0.00139	0.01177	0.00809	0.00991	0.00785	0.00609	0.00334	0.00176		0.00013	0.00094
IIA	3D	COD	BT2										0.00000	0.00000
IIA	3D	COD	BT1	0.01013	0.00115	0.00026								
IIA	3D	COD	LL1	0.00772	0.00968	0.01295	0.00601	0.00008	0.00010	0.00004				
IIA	3D	COD	TR3		0.00000		0.00000	0.00010						

Table 5.4.4.2 West of Scotland. Gear derogations (Coun. Reg. 1342/2008) ranked according to relative cod landings in tonnes, 2003-2012. Ranking is according to the year 2013.

ANNEX	REG_AREA	SPECIES	REG_GEAR	2004 REL	2005 REL	2006 REL	2007 REL	2008 REL	2009 REL	2010 REL	2011 REL	2012 REL	2013 REL	AVG 11-13
IIA	3D	COD	TR1	0.82629	0.88194	0.87078	0.80481	0.85312	0.92506	0.95867	0.93174	0.93228	0.94941	0.93781
IIA	3D	COD	TR2	0.15277	0.09363	0.07851	0.14640	0.12176	0.04809	0.02739	0.04935	0.06772	0.04930	0.05546
IIA	3D	COD	BT2	0.00151	0.01272	0.01926	0.03038	0.02486	0.02641	0.01376	0.01891		0.00128	0.01010
IIA	3D	COD	GN1										0.00001	0.00001
IIA	3D	COD	BT1	0.01102	0.00124	0.00061								
IIA	3D	COD	LL1	0.00841	0.01046	0.03084	0.01841	0.00026	0.00044	0.00018				
IIA	3D	COD	TR3											

5.4.5 ToR 3 Information on small boats (<10m)

Activity by vessels <10m in area 3d (west of Scotland) was recorded by France, IOM, UK(EWNI) and UK(Scotland). Ireland supplied landings data. Descriptions of the type and quality of data available for assessing effort and landings of vessels <10m can be found in section 4.

5.4.5.1 Fishing effort of small boats by Member State

Effort by nation and gear type is shown in Table 5.4.5.1.1.

Overall effort is 11% higher in 2013 compared to 2003 although it has been relatively stable since 2006. Greatest effort comes from Scottish vessels deploying pots. The effort employed in this category to a certain extent dictates the perception of overall effort changes in this region. The second largest effort total is for Scottish vessels employing TR2 gear. Effort in this category is roughly one eighth that in pots and has declined from a high in 2006, although increased again in 2013 as a result of English TR2 effort. Although small in absolute terms compared to Scottish effort there have been large increases in Northern Irish effort in pots up until 2011, this is followed by a 21% drop in effort from 2011-2013. Northern Irish dredging effort has also increased significantly recently and is now comparable to Scottish dredging effort, although both declined by between 25-30% in 2013.

Table 5.4.5.1.1 West of Scotland. Effort (kW*days) of vessels under 10 metres by gear type and Member State, 2003-2013. The average of 04-06 was used as the effort baseline for the cod management plan.

REG AREA	REG GEAR	SPECON	COUNTRY	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	rel chng 03	rel chng 04-06	rel chng 12
3D	DREDGE	NONE	ENG	536			2726				825	990	6920	1074	100	-61	-84
3D			IOM	2728			774								-100	-100	
3D			NIR	252		13886	14934	10218	10819	17595	19622	22454	42135	29943	11782	108	-29
3D			SCO	84393	104545	66603	19995	31968	57077	34484	34256	41033	45207	33432	-60	-48	-26
3D	GN1	NONE	NIR											464			
3D			SCO			56	468	1800	6493							-100	
3D	GT1	NONE	SCO					368			610	342	225				-100
3D	LL1	NONE	ENG									10					
3D			FRA								1419						
3D			NIR							66				406			
3D			SCO	25			51	241	740	664	410	2205	1296	2528	10010	4856	95
3D	NONE	NONE	SCO	110078	125306	120513	163399	124414	116648	164375	182992	210052	208226	224580	104	65	8
3D	OTTER	NONE	ENG				783			75				1805		131	
3D			NIR								112						
3D			SCO	9008	7717	18258	20563	5222	5669	2366	4390	5075	3833	1221	-86	-92	-68
3D	POTS	NONE	ENG	3380	194	7137	1682	8794	1500	11417	1219	7710	3014	3947	17	31	31
3D			NIR	7518	4191	2700	74328	92327	115948	90049	101479	117849	99252	92128	1125	240	-7
3D			SCO	2743791	2775120	3080793	3690442	3625560	3200012	3354454	3498490	3090422	2990277	3070025	12	-4	3
3D	TR1	NONE	SCO	1266	496	359	2789	2837	969	1991	5272	2685	3444	6323	399	421	84
3D	TR2	NONE	ENG	9260	3987	11052	6941	14620	12354	1343	217	5476	2279	15670	69	114	588
3D			NIR	8934	5756	1379	8683	5427	6125	7857	15903	13696	19555	9359	5	77	-52
3D			SCO	502576	484133	456538	532719	485139	479805	441125	398362	350432	396510	373161	-26	-24	-6
3D	TR3	NONE	SCO	116											-100		
Total				3483861	3511445	3779274	4541277	4408935	4014159	4127861	4265578	3870431	3822173	3866065	11	-2	1

5.4.5.2 Catches (landings and discards) of cod and associated species by small boats by Member State

Table 5.4.6.2.1 summarises landings by vessels under 10m west of Scotland. France, IOM, UK (EWNI) and UK (Scotland) recorded both effort and landings in area 3d West of Scotland.

Much of the Nephrops and crab catch comes from the creel fishery operating on the west coast while scallops are caught by dredges. Nephrops are also caught by trawls using TR2 mesh size. There are also significant landings of unidentified species (OTH) by Scottish and Irish vessels.

Table 5.4.5.2.1 Landings (t) by vessels under 10m west of Scotland by Member State and species ANF, CRE, HAD, HKE, NEP, PLE, POK, SCE, SOL, WHG and OTH (other species not specified in the data call)

COUNTRY	SPECIES	2004 L	2005 L	2006 L	2007 L	2008 L	2009 L	2010 L	2011 L	2012 L	2013 L
ENG	ANF		0.001								
ENG	COD		0.001								
ENG	CRE		0.122		166.765	0.062	3.12	0.08	7.286	2.598	3.065
ENG	HAD										
ENG	NEP	4.101	14.671	9.621	29.618	36.04	15.138	0.654	23.795	12.463	52.14
ENG	PLE		0.002								
ENG	SCE			2.551				11.998	9.619	29.869	4.15
IOM	SCE			3.683							
IRL	ANF	0.22				0.16		0.09	0.57		
IRL	COD	0.35							0.07		
IRL	CRE	3527.92	2458.95	2025.8	618	833.87	478.9	579	816		
IRL	HAD	0.98				0.06					
IRL	HKE	0.29				0.17					
IRL	NEP					2.34			6.89		
IRL	OTH	9350.79	5061.03	8185.76	6558.19	7520.47	1791.88	2922.42	1297.5	410	
IRL	PLE	0.69				1.85		2.05	2.94		
IRL	POK	0.75						2.2	0.02		
IRL	SOL	0.27				1.87		1.18	1.16		
IRL	WHG	1.12				0.06			0.88		
NIR	ANF	0.023		0.312	0.091	0.015		0.068	0.134	0.229	0.049
NIR	COD		0.053	0.012	0.018	0.01		0.037	0.023	0.037	0.014
NIR	CRE	1.892		53.52	152.25	190.946	227.102	197.119	253.158	143.653	40.873
NIR	HAD	0.067		0.019	0.025	0.026		0.017	0.054	0.036	0.025
NIR	HKE	0.008		0.125	0.011	0.001		0.048	0.013	0.03	0.023
NIR	NEP	16.057	3.136	22.095	14.694	12.736	5.083	41.22	32.051	61.374	21.39
NIR	PLE		0.048					0.013	0.07	0.003	0.054
NIR	POK		0.054								0.018
NIR	SCE		31.75	36.275	27.75	25.597	45.88	39.997	55.201	134.606	96.16
NIR	SOL			0.127	0.024	0.005		0.002	0.006	0.018	0.005
NIR	WHG		1.08								
SCO	ANF	11.235	1.275	3.637	0.77	0.336	0.429	0.018		0.04	0.015
SCO	COD	1.062	0.376	0.832	2.303	0.787	0.19	0.101		0.158	0.062
SCO	CRE	822.031	1019.075	1767.523	2250.717	1554.612	1400.292	1419.608	1527.054	1630.231	1650.6
SCO	HAD	12.019	2.075	2.839	1.322	0.625	1.768		0.194	0.13	0.049
SCO	HKE	0.737	0.388	0.471	0.05	0.476	0.371	0.076		0.225	0.006
SCO	NEP	1788.195	1745.79	2305.563	2329.796	2168.488	1978.947	2014.7	1780.669	1823.787	1802.96
SCO	OTH	1787.482	1208.226	1508.993	1568.369	1367.403	1569.657	1495.906	1416.869	1497.391	1337.729
SCO	PLE	0.05	0.054	0.508	0.071	0.075		0.063		0.076	0.045
SCO	POK	0.012	0.06								0.011
SCO	SCE	483.079	331.03	263.4	231.119	933.895	312.054	327.069	337.696	441.562	412.99
SCO	SOL	0.001	0.032	0.002	0.024		0.072			0.005	
SCO	WHG	6.023	2.058	0.813	0.034	0.895	0.534			0.073	
Grand total		**17817.454**	**11881.337**	**16194.481**	**13952.011**	**14653.88**	**7831.417**	**9055.734**	**7569.922**	**6188.594**	**5422.433**

5.4.6 ToR 4 Spatio-temporal patterns in effective effort by fisheries

Spatial figures of effort for area 3d concentrate on those categories identified as significant in terms of recorded effort (see previous section 5.4.1) and in terms of catches of cod (section 5.4.2). From section 5.4.2 catches of plaice and sole are shown to be small for all gear categories in the west of Scotland area and these species were not considered when deciding on categories to present here. Figures use a common scale across years for a given category (e.g. TR1) but scales are unique to each category therefore the colours assigned to statistical rectangles for category TR1 cannot be compared directly to those assigned for category TR2. Figures are based on absolute values. This is after data values across all years have been combined for that category. Zero values are removed first.

TR1 (Figure 5.4.6.1) – Effort is greatest in the north of the area with a distinct line of high effort in statistical rectangles straddling or close to the shelf edge. At the start of the time series a rectangle in the far south east of the area (mouth of the Clyde) had one of the highest recorded levels of effort. This area was the location for a specific cod fishery now subject to seasonal closures. The reduction in overall effort within this gear category is clear. CPart11 vessels in 2013 contributed little effort per ICES statistical rectangle. In the rectangles of highest CPart11 effort there was only 1000-1200 trawled hours effort.

TR2 (Figure 5.4.6.2) – It can be seen that vessels using gear in the TR2 category primarily belong to coastal fisheries. These vessels target Nephrops on well defined fishing grounds with muddy substrate. Highest effort is consistently just north of the boundary between management areas 3d and 3c (mouth of the Clyde). Remaining important rectangles are adjacent to the Scottish mainland, in particular between the Scottish mainland and the Outer Hebrides (known as the north and south Minches). The time series shows a contraction of effort in towards these areas of greatest activity. In 2013 CPart11 vessels contributed a large proportion of the effort in the north and south Minches in comparison to a relatively small contribution of effort on the boundary between management areas 3d and 3c (see Figures 5.4.6.2.1 and 5.4.6.2.2). Note the scales for Figures 5.4.6.2.1 and 5.4.6.2.2 are unique and therefore not directly comparable.

LL1 (Figure 5.4.6.3) – There is a concentration of effort along the continental shelf edge throughout the time series.

GN1 (Figure 5.4.6.4) – Overall effort recorded for this category is low but LPUE of cod is currently the highest behind the TR gears. Until 2005 effort generally took place offshore and was split between an area in the north west of ICES division VIa and an area to the west of Ireland. Subsequently effort shifted until in 2008 there appeared to be a new concentration of effort in the north of area VIa but now located on the continental shelf edge.

The following are unregulated gear types but given the importance of unregulated gear effort relative to regulated gear effort (see Figure 5.4.1.5) they are shown to provide background information on the three unregulated gear types with highest effort.

PEL_TRAWL: (Figure 5.4.6.5) – Primarily an offshore fishery, (targeting herring), between 2003 and 2005 greatest effort was expended in the far north east corner of area VIa. Highest effort is at the shelf edge but overall effort has deceased before stabilizing from 2010.

POTS (Figure 5.4.6.6) – Vessels using pots target Nephrops and edible crabs west of Scotland and effort is concentrated in coastal waters of Scotland from the southern border of area VIa north as far as the North Minch. There is no indication of a spatial shift in effort or of a change in overall effort.

DREDGE (Figure 5.4.6.7) – West of Scotland dredge fishing is used to catch scallops. Greatest effort seems to have shifted from the South Minch area to coastal areas further south (including the Clyde). This switch was particularly evident in 2012 and 2013, with a high level of effort in the south.

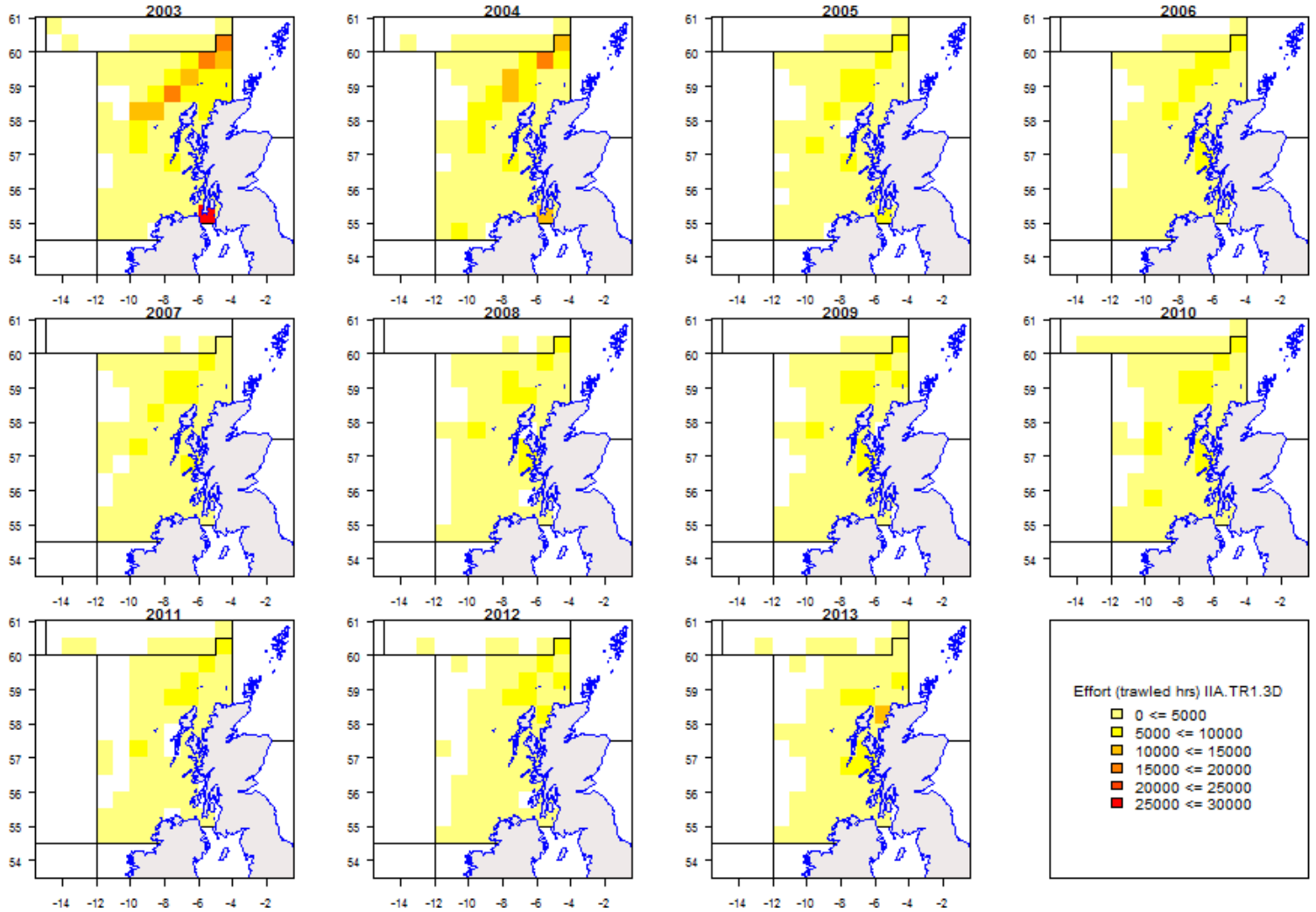


Figure 5.4.6.1 West of Scotland. Effort (trawled hours) by ICES statistical rectangle for TR1, 2003-2013. These figures include effort carried out under special condition CPart11.

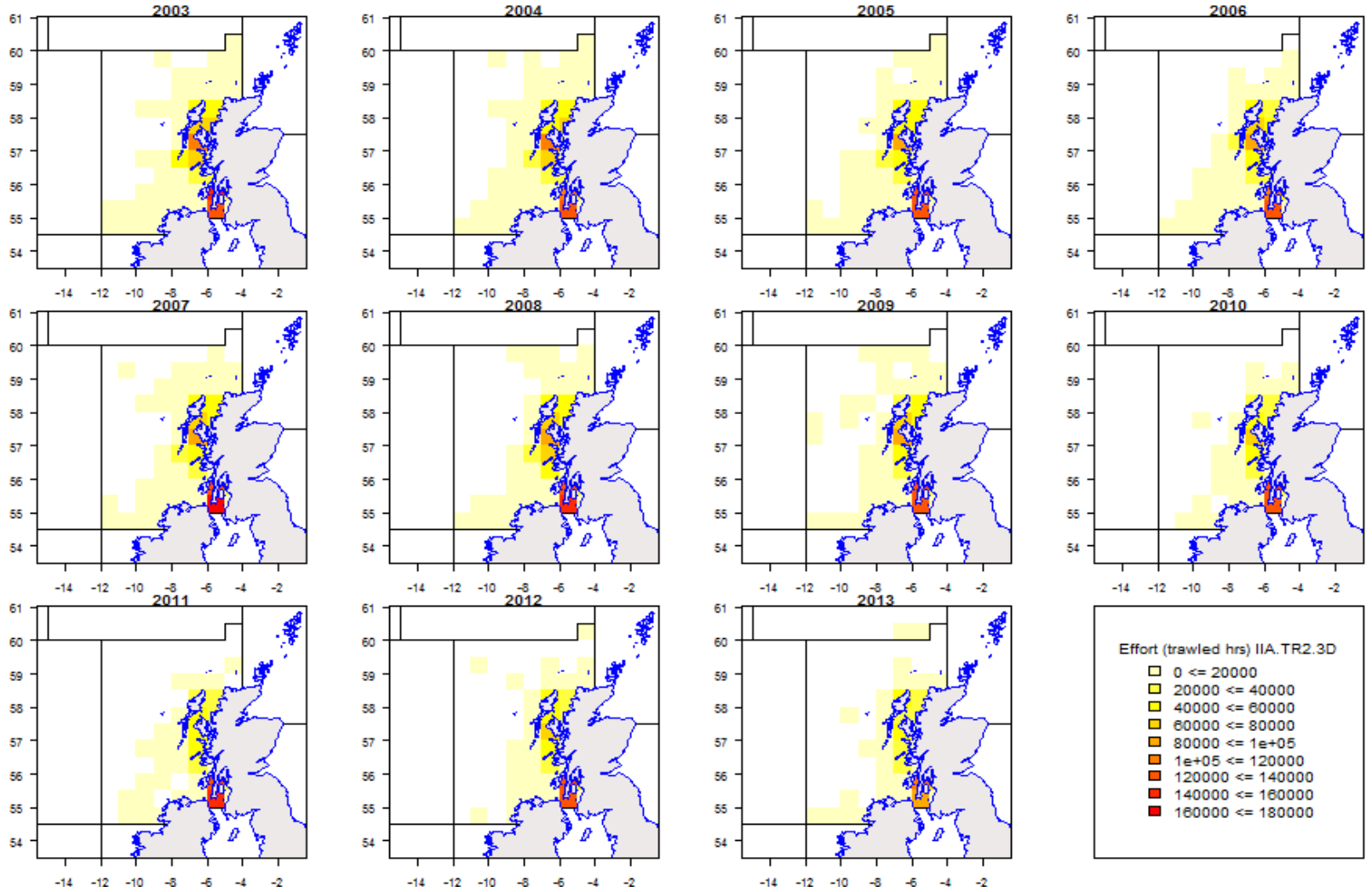


Figure 5.4.6.2 West of Scotland. Effort (trawled hours) by ICES statistical rectangle for TR2, 2003-2013. These figures include effort carried out under special condition CPart11.

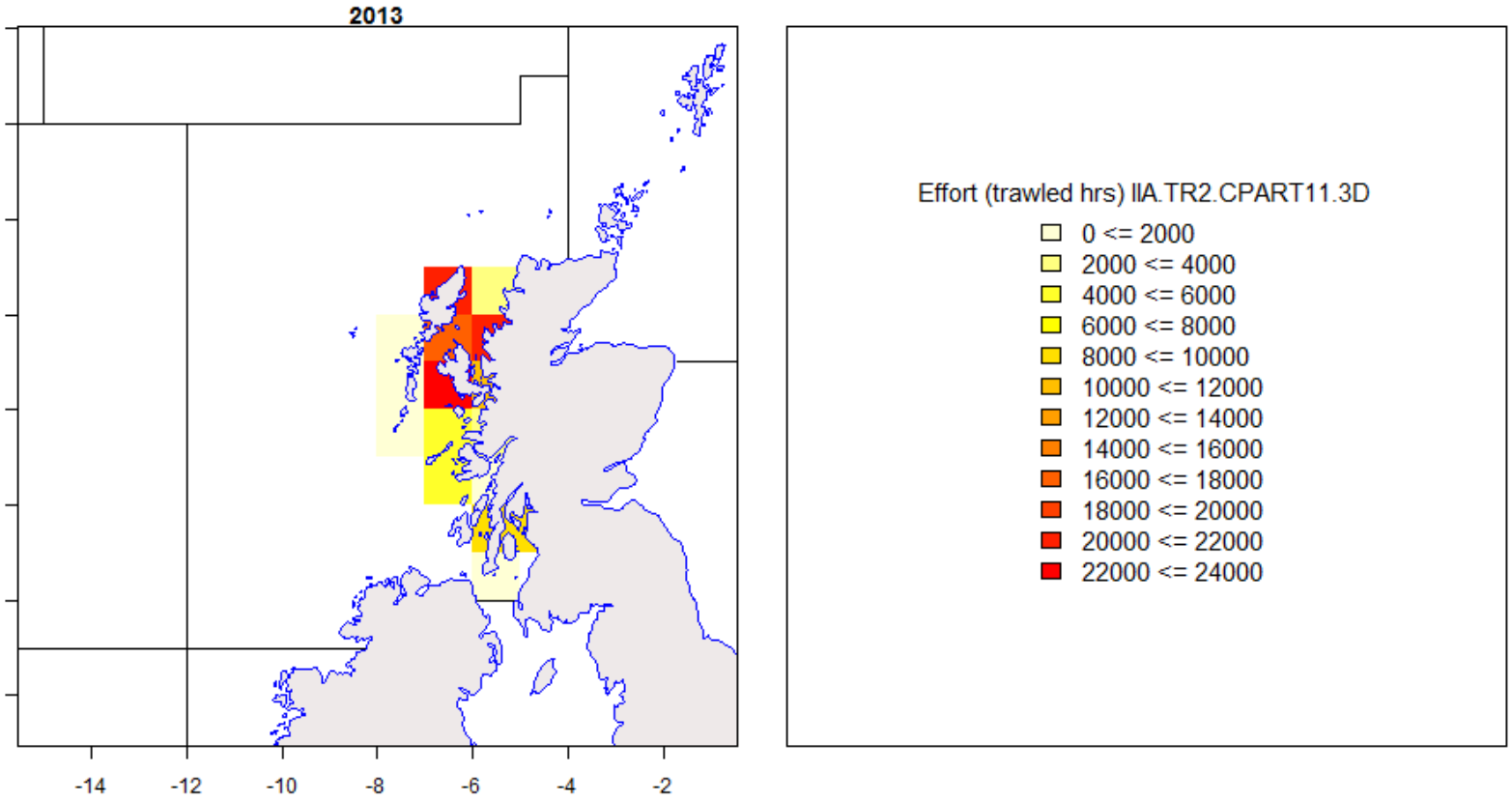


Figure 5.4.6.2.1 West of Scotland. Effort (trawled hours) by ICES statistical rectangle for TR2 vessels under CPart11, 2003-2013.

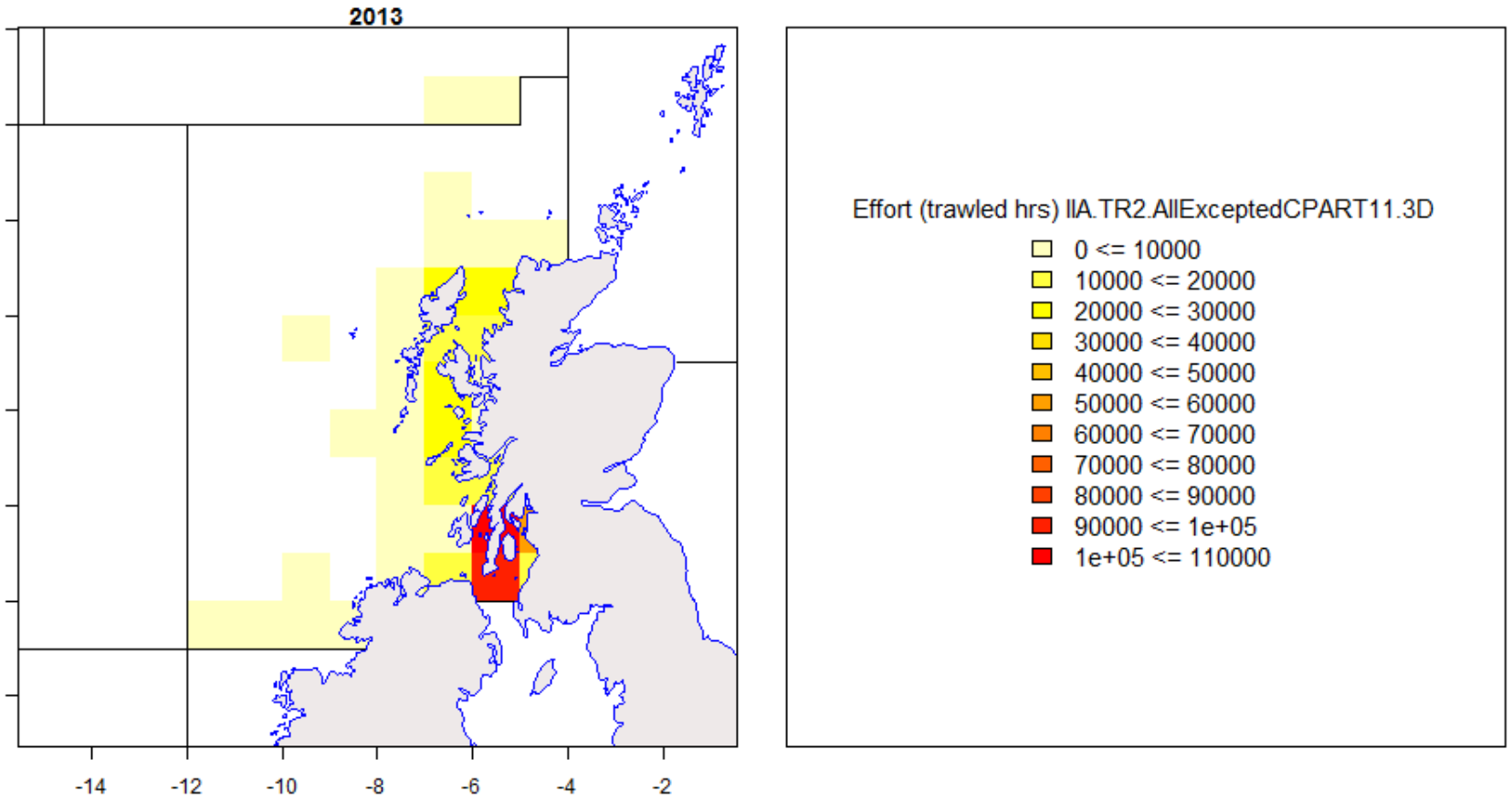


Figure 5.4.6.2.2 West of Scotland. Effort (trawled hours) by ICES statistical rectangle for all TR2 vessels except those under CPart11, 2003-2013.

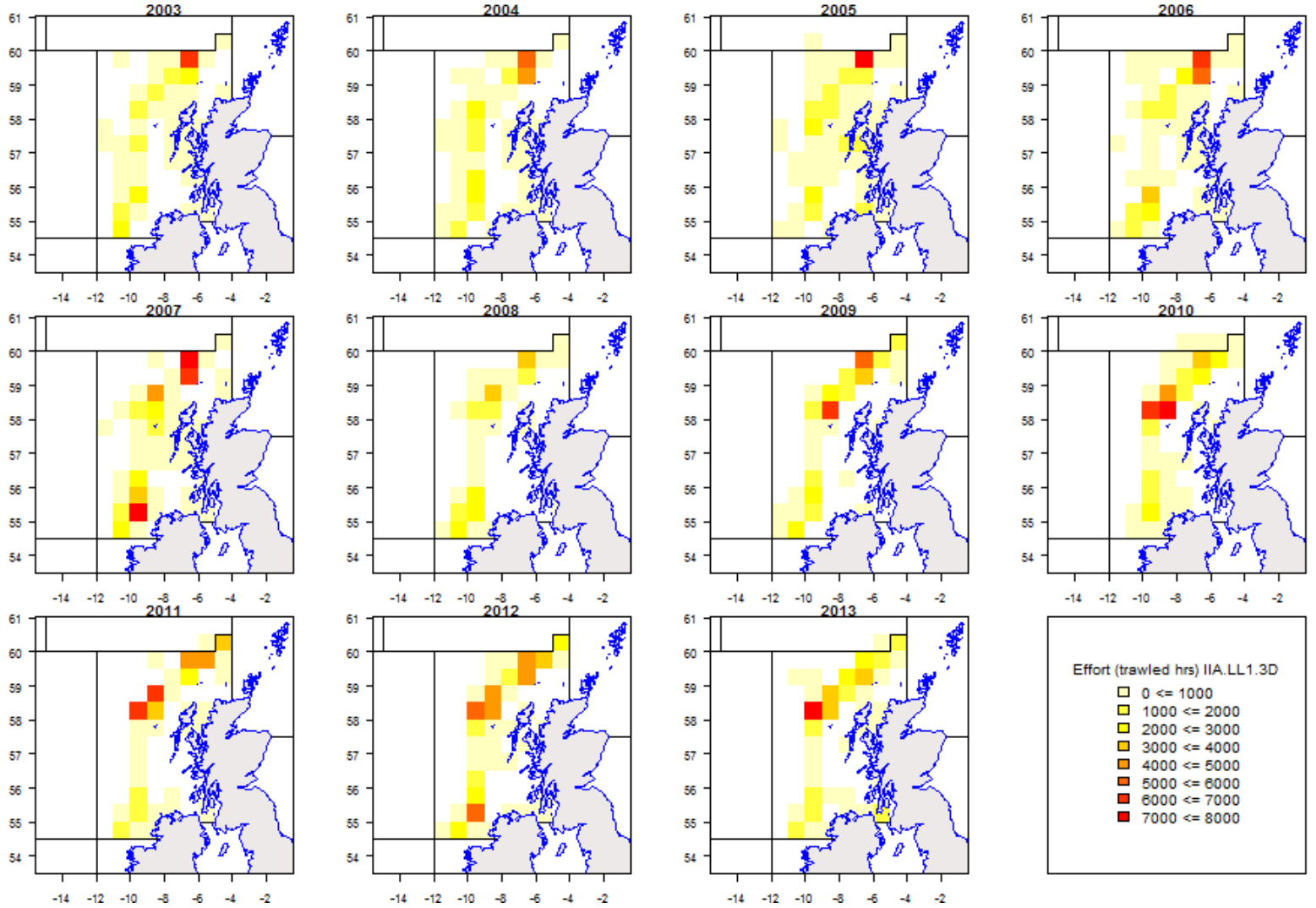


Figure 5.4.6.3 West of Scotland. Effort (trawled hours) by ICES statistical rectangle for LL1, 2003-2013.

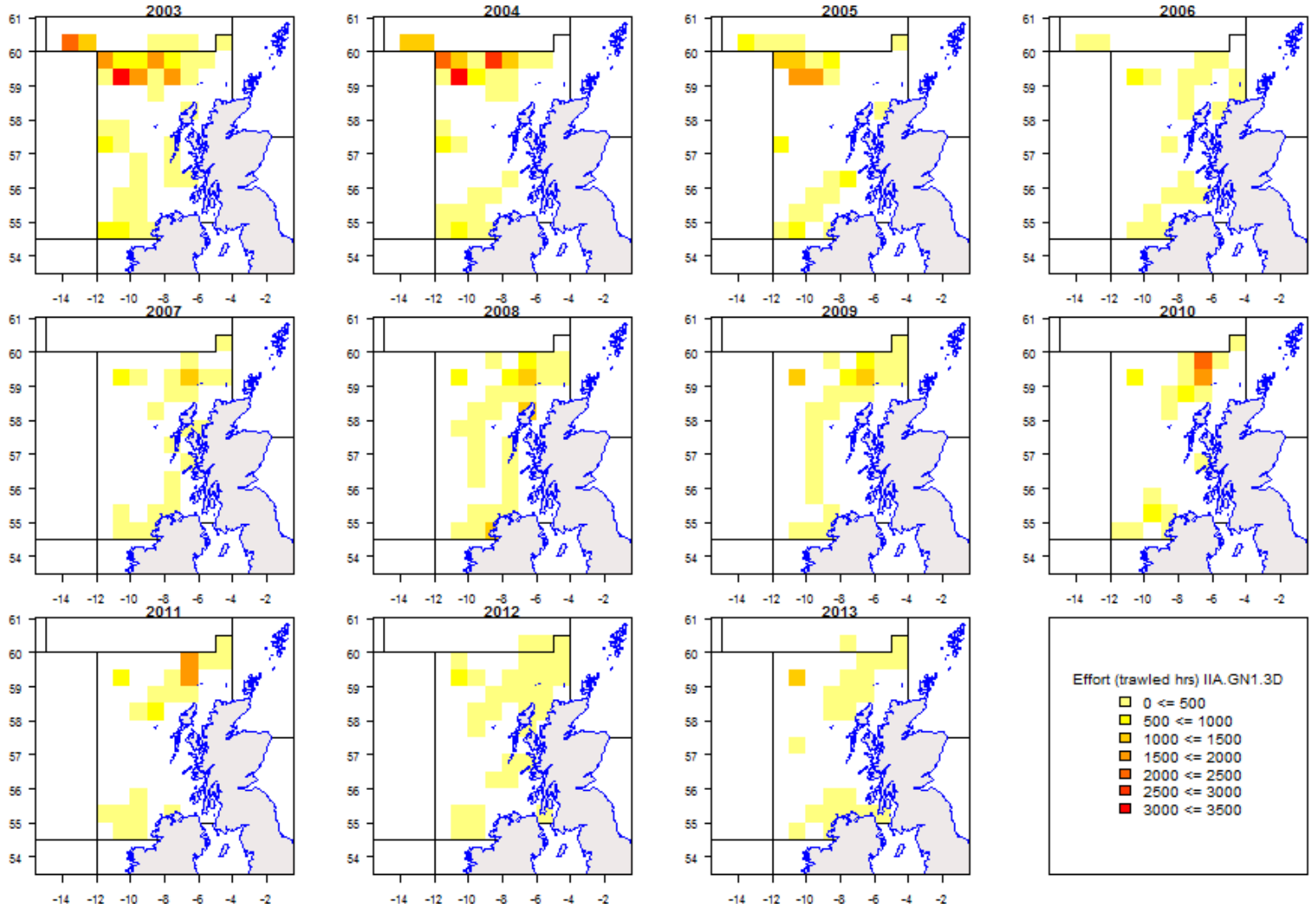


Figure 5.4.6.4 West of Scotland. Effort (hours) by ICES statistical rectangle for GN1, 2003-2013.

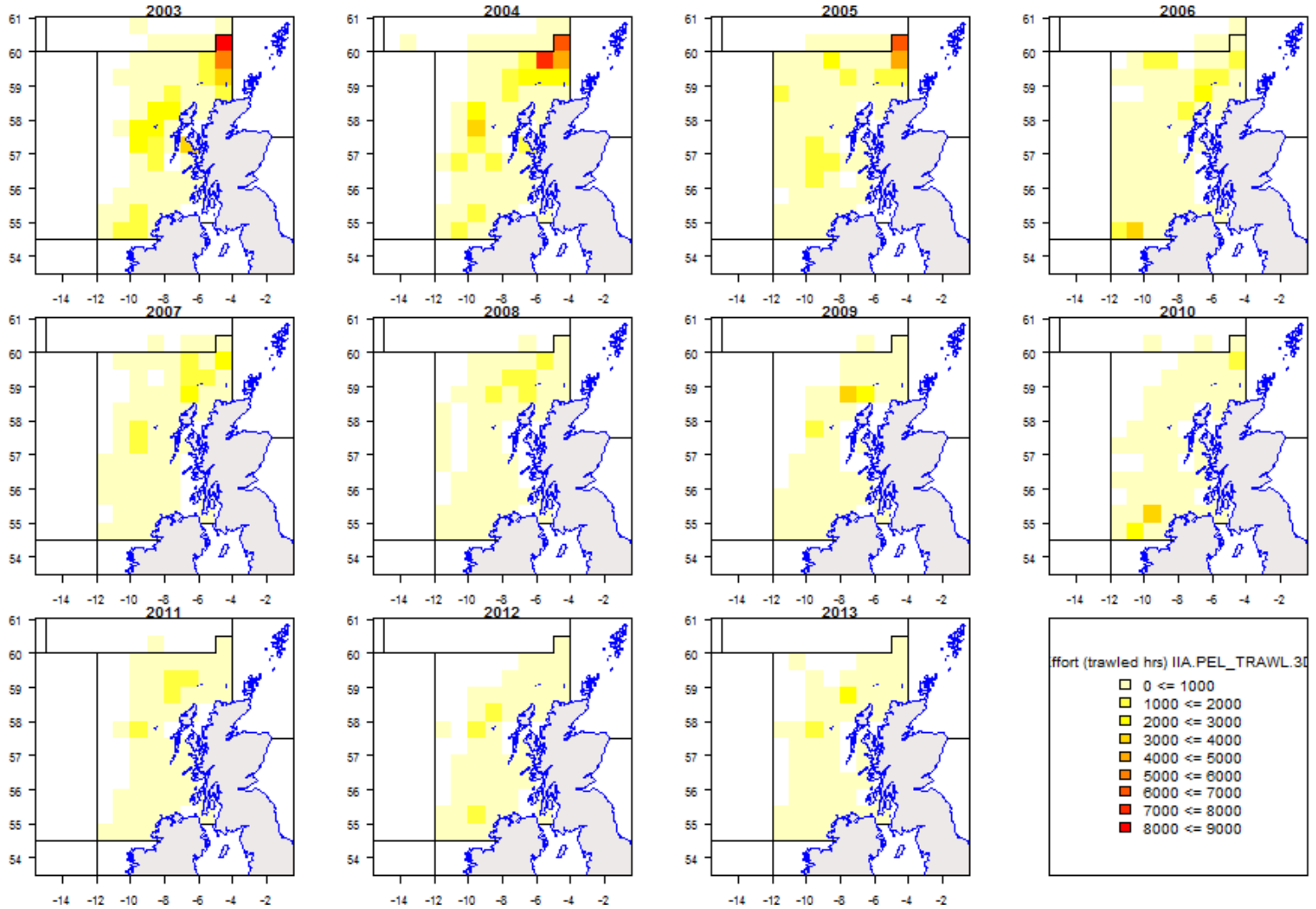


Figure 5.4.6.5 West of Scotland. Effort (hours) by ICES statistical rectangle for unregulated gear PELAGIC TRAWL, 2003-2013

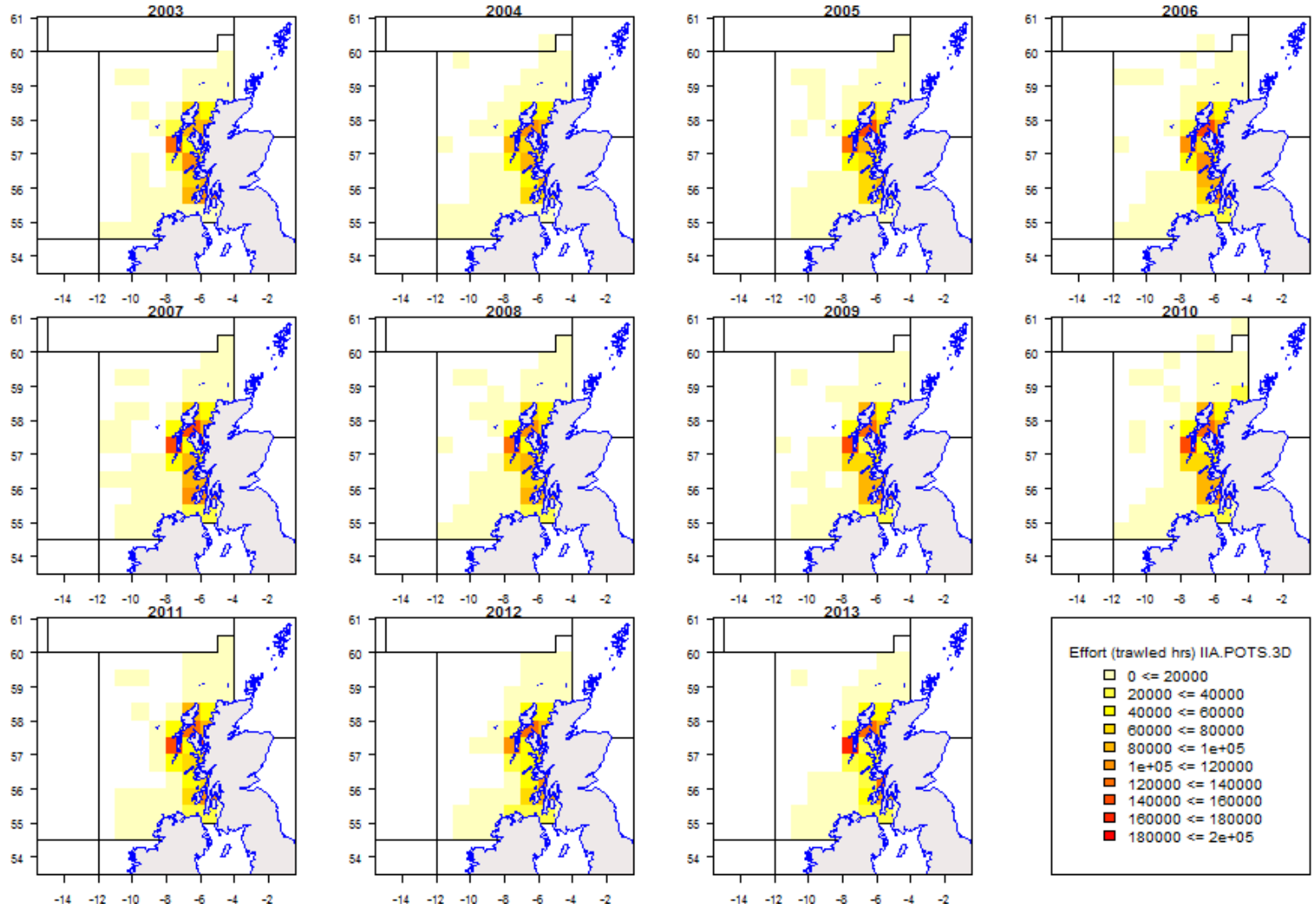


Figure 5.4.6.6 West of Scotland. Effort (hours) by ICES statistical rectangle for unregulated gear POTS, 2003-2013

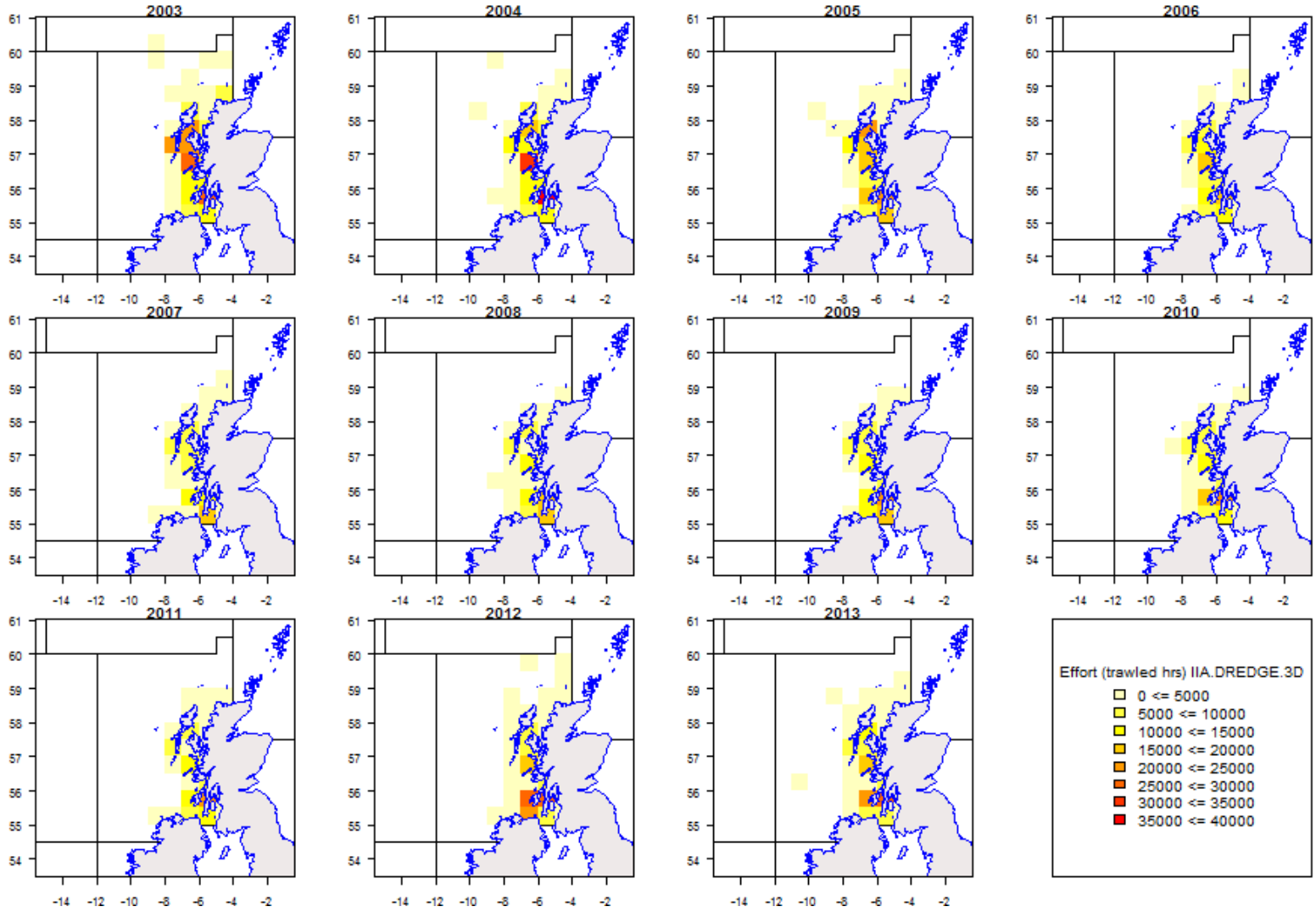


Figure 5.4.6.7 West of Scotland. Effort (hours) by ICES statistical rectangle for unregulated gear DREDGE, 2003-2013

5.4.7 ToR 5 Remarks on quality of catches and discard estimates

General comments on the quality of catch and discard estimates has been provided in section 4.

5.4.8 ToR 6 Estimation of conversion factors to be applied for effort transfers between regulated gear groups

The table of international conversion factors (Table 5.4.8.1) is based on average CPUE (2011-2013). Discard data are scarce for many regulated gear groups but have been interpreted as well representative for TR1 and TR2.

Table 5.4.8.1 West of Scotland. Conversion factors for exchange of effort between gears based on average CPUE 2011-2013. Red cells indicate no discard data included and values are estimated based on LPUE; green cells indicate representative discard information available.

West of Scotland												
	donor gear	receiving gear							2011-2013			
		BT1	BT2	GN1	LL1	TR1	TR2	TR3	CPUE	LPUE		factor =
3d	BT1		1	0.25	1	0.003	0.023	1	1	1		if factor > 1 then
3d	BT2	1		0.25	1	0.003	0.023	1	1	1		factor = 1
3d	GN1	1	1		1	0.013	0.093	1	4	4		
3d	LL1	1	1	0.25		0.003	0.023	1	1	1		if CPUE=0 or LPUE = 0 then
3d	TR1	1	1	1	1		1	1	319	33		CPUE=1 or LPUE=1
3d	TR2	1	1	1	1	0.135		1	43	2		
3d	TR3	1	1	0.25	1	0.003	0.023		1	1		

5.4.9 ToR 7 Correlation between partial cod mortality and fishing effort by Member State and fisheries

The STECF EWG 14-13 presents partial fishing mortalities of cod by major fisheries and Member States using the estimated fishing mortality by ICES (2014) and the catches (Table 5.4.9.1), landings (Table 5.4.9.2) and discards volumes (Table 5.4.9.3) in relation to the catch totals supplied to STECF for the year available. The full list of all fisheries can be downloaded from the JRC website: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1413

The anticipated trend in fishing mortality as derived from the cod plan is also presented in Tables 5.4.9.1-3. In the case of the west of Scotland the spawning stock biomass (SSB) of cod was evaluated as well below the limit reference point (Blim) in 2008 and predicted to remain below that reference point by 2010 (the forecast year). Under such circumstances the plan calls for a 25% reduction in F. Without simulations including assumptions on recruitment it is not possible to make quantitative predictions of the response of the SSB to the assumed reductions if F. Therefore in the tables presented it is simply assumed that even with 25% reductions in F the SSB remains below Blim through 2013. The sustainable exploitation target is defined as FMSY=0.19.

The trends in fishing effort in units of kWdays at sea of the relevant fisheries are also presented in Tables 5.4.9.1-3. Regressions of partial F against effort for the main gear groups are presented in Figure 5.4.9.1. The figure includes presentation of regression parameters r (absolute value of Pearson's coefficient of correlation), number of points considered as well as a p value to quantify the statistical significance ($\leq$0.05) assisting conclusions about the quality of the correlation between the partial F and fisheries specific fishing effort.

It can be concluded from the estimated F of the stock assessment (Table 5.4.9.1) that the stock is unsustainably exploited with an F more than 2 times higher than the target. Prior to 2006 the fisheries listed contributed a small fraction to the total estimated fishing mortality because of inclusion of unaccounted mortality in the stock assessment. Since then the proportion of total estimated fishing mortality has been much higher. The remainder is due to catch from unregulated gears and differences in the applied methods to estimate discards between ICES and STECF EWG 14-13. The contribution of unregulated gears in 2013 is small and is mainly from those exempt under CPart11.

The metier contributing most to partial F of cod is the Scottish TR1 gear operating under special condition CPart13D (fishing west of the French line). The partial F from this category increased from 2010 to 2011 but is reduced from this level in 2012 and 2013. The high partial Fs are mainly due to discarding (Table 5.4.9.3).

Table 5.4.9.1 Cod west of Scotland (catches). The left part of the table lists estimated F trajectories from the management plan and the ICES 2014 cod assessment, as well as partial Fs for catches of fisheries using regulated gears. The right part of the table lists the respective trends in fishing effort (kW days at sea). Cod plan article 13 assignments apply since 2009 or 2010, as interpreted from the background documents of national declarations. A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs from total catches of all effort regulated gears to the overall F estimate of the stock.

Starting 2008 F reductions of 25 percent from previous year as SSB remains below Blim (Fmsy=0.19)

				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
F plan									1.018	0.764	0.573	0.43	0.322	0.242
reduction F plan										-0.25	-0.25	-0.25	-0.25	-0.25
F estimated				1.04	0.99	1.094	0.918	1.055	1.018	0.901	0.841	1.035	0.909	0.99
										-0.11	-0.07	0.23	-0.12	0.09
Fpar														
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
ENG	BT2	NONE	catches	0										0
ENG	GN1	NONE	catches				3.00E-05							
ENG	LL1	NONE	catches	0.00151	9.00E-04	0.00212	0.00408	0.00339						
ENG	TR1	NONE	catches	0.009	0.00835	0.0047	0.01308	0.00089	0.00875	0.0026	0.00096	0.00084	0.00031	0.00031
ENG	TR2	NONE	catches	0.00056	0.00096	0.00101	0.00143	0.00149	0.00125	0.00019	2.00E-05	5.00E-05	0.00026	0.00035
FRA	GN1	NONE	catches	0.00152	9.00E-05	0.00401	0.00559	0.00511	0.0029	0.00304	0.00134	0.00163		
FRA	LL1	NONE	catches				0.00372	2.00E-05	6.00E-05	6.00E-05				
FRA	TR1	CPART13B	catches										0.01556	1.00E-04
FRA	TR1	NONE	catches	0.04362	0.03734	0.06504	0.11545	0.13072	0.17362	0.05077	0.02914	0.02139	0.00169	
FRA	TR2	NONE	catches	2.00E-04	6.00E-05									
GER	TR1	CPART13B	catches								2.00E-05		5.00E-04	
GER	TR1	NONE	catches	1.00E-05		4.00E-05	0.00273	0.00575	0.00152	4.00E-05	3.00E-05			
IOM	TR2	NONE	catches				0.00078							
IRL	GN1	NONE	catches	6.00E-05	0.00027			0.00202	0.00264	0.00059	0.00021	0.00028		0.00014
IRL	LL1	NONE	catches								2.00E-05			
IRL	TR1	CPART13C	catches							0.01257	0.00699	0.00274	1.00E-05	
IRL	TR1	CPART13D	catches							0.05981	0.08675	0.20158	5.00E-04	0.00116
IRL	TR1	NONE	catches	0.00903	0.00176	0.00716	0.01244	0.02194	0.02543	0.00265	0.00981	0.00368	4.00E-05	0.00063
IRL	TR2	NONE	catches	0.02999	0.01385	0.01477	0.11014	0.01608	0.01458	0.00146	6.00E-05	0.00047	0.00039	0.00089
IRL	TR3	NONE	catches	0		0		0	7.00E-05					
NED	TR2	NONE	catches									0	0	
NIR	TR1	NONE	catches	0.01163	0.01406	0.01328	0.00814	0.01521	0.00836	0.00513	0.00076			7.00E-05
NIR	TR2	NONE	catches	0.00175	0.00385	0.0021	0.01232	0.01619	0.00395	0.00052	0.00061	0.00042	0.00052	0.00776
SCO	BT1	NONE	catches	0.00041	0.00269	0.00039	0.00018							
SCO	LL1	NONE	catches	0.00067	0.00115	0.00118	0.0012	0.00091						
SCO	TR1	CPART13B	catches							0.01694	0.01199	0.09192		
SCO	TR1	CPART13C	catches							0.02993	0.03567	0.05504	0.08339	0.21622
SCO	TR1	CPART13D	catches							0.37681	0.27701	0.7022	0.61974	0.57428
SCO	TR1	NONE	catches	0.19212	0.14471	0.19131	0.35255	0.41807	0.44451					
SCO	TR2	CPART13B	catches							0.02369	0.00204	0.00314	0.0191	
SCO	TR2	CPART13C	catches							0.00883	0.00036	0.00091	0.06629	0.27443
SCO	TR2	NONE	catches	0.04296	0.03546	0.03341	0.05167	0.08182	0.01852					
Sum				0.34504	0.2655	0.34052	0.69553	0.71961	0.70616	0.59563	0.46379	1.08629	0.8083	1.07634
(Sum of Fpars)/estimated F				0.3318	0.2682	0.3113	0.7577	0.6821	0.6937	0.6611	0.5515	1.0496	0.8892	1.0872

EFFORT

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
kW days at sea											
Effort estimated	21418390	18982683	16048869	14393175	15122682	14274451	14266509	11430034	9350123	8960275	8275755
kW days at sea	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
ENG	1274	12067	1810								302.02
ENG	471808	309423	201100	23028	36174		13832	2540		765	
ENG	370933	459841	317428	284497	325325	28103				4415	130191.6
ENG	319445	145914	85851	48469	8711	17020	24446	14062	12979	5327	4230
ENG	106861	66311	57345	63616	58724	87267	15721	14802	21642	64875	62793
FRA	130216	169758	145478	129344	230271	572425	572425	294925	241877	206263	178288
FRA				163130	445344	277750	277750	189072	172250		110
FRA										1734176	1907198
FRA	6010785	5807538	6038254	5193815	5058616	4486887	4482329	3469228	2149300	16870	573.5
FRA	43098	12350			883	269645	274203				
GER								4530		1103	
GER	19191	12530	35586	27897	23652	3060	4854	2427			
IOM	181	1172	181	894		649					
IRL	19967	20763	192	3554	13346	9949	3275	551	2075	75	12590
IRL	7200	18400	3000		9750			1397	7470	3471	2082
IRL							117484	108034	17295	12836	183
IRL							253879	347386	206350	27041	31825
IRL	496439	316477	308681	325597	530740	435661	179594	298286	126436	17853	72426
IRL	1130195	977557	767211	712325	388727	205082	17989	9135	17461	18797	11935
IRL	2198		342	160	317	11321	1323		5915	2503	600
NED									5464	884	
NIR	338394	162967	87191	29352	33609	38029	45378	23860	3160		11788
NIR	281887	353511	350269	454128	757758	654124	524483	878592	948262	806188	600828.4
SCO	60295	151480	119958	81194	1803						
SCO	124695	148430	306947	371404	518888	378736	703396	723065	694992	518307	305940
SCO							113760	102762	443735	4566	
SCO							217928	358116	519551	707987	873638.1
SCO							1897026	1855833	1116540	1383078	1193424
SCO	5722625	4502156	2635380	2099673	1986483	1990144					
SCO							3733406	2494409	2462700	1905142	
SCO							792028	237022	174669	1517753	2874809
SCO	5760703	5334038	4586665	4381098	4693561	4808599					
Sum	21418390	18982683	16048869	14393175	15122682	14274451	14266509	11430034	9350123	8960275	8275755

Table 5.4.9.2 Cod west of Scotland (landings). The left part of the table lists estimated F trajectories from the management plan and the ICES 2014 cod assessment, as well as partial Fs for landings of fisheries using regulated gears. The right part of the table lists the respective trends in fishing effort (kW days at sea). Cod plan article 13 assignments apply since 2009 or 2010, as interpreted from the background documents of national declarations. A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs from landings of all effort regulated gears to the overall F estimate of the stock.

Starting 2008 F reductions of 25 percent from previous year as SSB remains below Blim (Fmsy=0.19)																									
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013			2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
F plan									1.018	0.764	0.573	0.43	0.322	0.242													
reduction F plan										-0.25	-0.25	-0.25	-0.25	-0.25													
F estimated				1.04	0.99	1.094	0.918	1.055	1.018	0.901	0.841	1.035	0.909	0.99		Effort estimated	21418390	18982683	16048869	14393175	15122682	14274451	14266509	11430034	9350123	8960275	8275755
										-0.11	-0.07	0.23	-0.12	0.09													
Fpar																EFFORT											
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013		kW days at sea	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
FRA	TR2	NONE	landings	0.00017	2.00E-05												43098	12350			883	269645	274203				
ENG	BT2	NONE	landings	0										0			1274	12067	1810								302.02
ENG	GN1	NONE	landings				3.00E-05										471808	309423	201100	23028	36174		13832	2540		765	
ENG	LL1	NONE	landings	0.00151	9.00E-04	0.00212	0.00408	0.00339									370933	459841	317428	284497	325325	28103				4415	130191.6
NED	TR2	NONE	landings									0	0												5464	884	
ENG	TR1	NONE	landings	0.00889	0.00811	0.00463	0.0056	0.00029	0.00215	0.00249	0.00077	0.00084	0.00031	0.00031			319445	145914	85851	48469	8711	17020	24446	14062	12979	5327	4230
ENG	TR2	NONE	landings	0.00052	0.00082	0.00069	0.00088	0.00035	0.00099	0.00018	2.00E-05	5.00E-05	0.00026	0.00014			106861	66311	57345	63616	58724	87267	15721	14802	21642	64875	62793
FRA	GN1	NONE	landings	0.00152	9.00E-05	0.00401	0.00559	0.00511	0.0029	0.00304	0.00134	0.00163					130216	169758	145478	129344	230271	572425	572425	294925	241877	206263	178288
FRA	LL1	NONE	landings				0.00372	2.00E-05	6.00E-05	6.00E-05										163130	445344	277750	277750	189072	172250		110
FRA	TR1	CPART13B	landings										0.00183	1.00E-04												1734176	1907198
FRA	TR1	NONE	landings	0.04292	0.03647	0.06408	0.05816	0.04411	0.0469	0.04903	0.02444	0.02116	0.00042				6010785	5807538	6038254	5193815	5058616	4486887	4482329	3469228	2149300	16870	573.5
GER	TR1	CPART13B	landings								0		2.00E-05											4530		1103	
GER	TR1	NONE	landings	1.00E-05		4.00E-05	0.0014	0.00118	0.00037	4.00E-05	3.00E-05						19191	12530	35586	27897	23652	3060	4854	2427			
IOM	TR2	NONE	landings				2.00E-05										181	1172	181	894		649					
IRL	GN1	NONE	landings	6.00E-05	0.00027			0.00202	0.00264	0.00059	0.00021	0.00028		0.00014			19967	20763	192	3554	13346	9949	3275	551	2075	75	12590
IRL	LL1	NONE	landings								2.00E-05						7200	18400	3000		9750			1397	7470	3471	2082
IRL	TR1	CPART13C	landings							0.00172	0.00122	0.00025	0										117484	108034	17295	12836	183
IRL	TR1	CPART13C	landings							0.00819	0.01518	0.01331	0.00022	0.00039									253879	347386	206350	27041	31825
IRL	TR1	NONE	landings	0.00767	0.00139	0.00631	0.00493	0.02085	0.02152	0.00252	0.00878	0.00367	2.00E-05	0.00063			496439	316477	308681	325597	530740	435661	179594	298286	126436	17853	72426
IRL	TR2	NONE	landings	0.02407	0.01203	0.01144	0.00706	0.01431	0.00974	0.00145	6.00E-05	0.00046	0.00039	0.00052			1130195	977557	767211	712325	388727	205082	17989	9135	17461	18797	11935
IRL	TR3	NONE	landings	0		0		0	0								2198		342	160	317	11321	1323		5915	2503	600
NIR	TR1	NONE	landings	0.01151	0.01369	0.01312	0.00434	0.00332	0.00272	0.00499	0.00075			7.00E-05			338394	162967	87191	29352	33609	38029	45378	23860	3160		11788
NIR	TR2	NONE	landings	0.00148	0.00235	0.00133	0.00232	0.00388	0.00191	0.00052	0.00061	0.00042	0.00052	0.00064			281887	353511	350269	454128	757758	654124	524483	878592	948262	806188	600828.4
SCO	BT1	NONE	landings	0.00041	0.00269	0.00039	0.00018										60295	151480	119958	81194	1803						
SCO	LL1	NONE	landings	0.00067	0.00115	0.00118	0.0012	0.00091									124695	148430	306947	371404	518888	378736	703396	723065	694992	518307	305940
SCO	TR1	CPART13B	landings							0.00232	0.0021	0.00593											113760	102762	443735	4566	
SCO	TR1	CPART13C	landings							0.00409	0.00625	0.00355	0.00738	0.02639									217928	358116	519551	707987	873638.1
SCO	TR1	CPART13C	landings							0.05155	0.0485	0.04531	0.07175	0.07378									1897026	1855833	1116540	1383078	1193424
SCO	TR1	NONE	landings	0.1907	0.14195	0.1896	0.17992	0.11923	0.11664								5722625	4502156	2635380	2099673	1986483	1990144					
SCO	TR2	CPART13B	landings							0.00324	0.00204	0.00314	0.00107										3733406	2494409	2462700	1905142	
SCO	TR2	CPART13C	landings							0.00121	0.00036	0.00091	0.00371	0.00398									792028	237022	174669	1517753	2874809
SCO	TR2	NONE	landings	0.03872	0.02204	0.01603	0.01266	0.01585	0.01452								5760703	5334038	4586665	4381098	4693561	4808599					
Sum				0.33083	0.24397	0.31497	0.29209	0.23482	0.22306	0.13723	0.11268	0.10091	0.0879	0.10709			21418390	18982683	16048869	14393175	15122682	14274451	14266509	11430034	9350123	8960275	8275755
(Sum of Fpars)/estimated F				0.3181	0.2464	0.2879	0.3182	0.2226	0.2191	0.1523	0.134	0.0975	0.0967	0.1082													

Table 5.4.9.3 Cod west of Scotland (discards). The left part of the table lists estimated F trajectories from the management plan and the ICES 2014 cod assessment, as well as partial Fs for discards of fisheries using regulated gears. The right part of the table lists the respective trends in fishing effort (kW days at sea). Cod plan article 13 assignments apply since 2009 or 2010, as interpreted from the background documents of national declarations. A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs from discards of all effort regulated gears to the overall F estimate of the stock.

Starting 2008 F reductions of 25 percent from previous year as SSB remains below Blim (Fmsy=0.19)																										
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013			2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
F plan									1.018	0.764	0.573	0.43	0.322	0.242													
reduction F plan										-0.25	-0.25	-0.25	-0.25	-0.25													
F estimated				1.04	0.99	1.094	0.918	1.055	1.018	0.901	0.841	1.035	0.909	0.99		Effort estimated	21418390	18982683	16048869	14393175	15122682	14274451	14266509	11430034	9350123	8960275	8275755
										-0.11	-0.07	0.23	-0.12	0.09													
Fpar																EFFORT											
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013		kW days at sea	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
NED	TR2	NONE	discards									0	0												5464	884	
ENG	BT2	NONE	discards	0										0			1274	12067	1810								302.02
ENG	GN1	NONE	discards				0										471808	309423	201100	23028	36174		13832	2540		765	
ENG	LL1	NONE	discards	0	0	0	0	0									370933	459841	317428	284497	325325	28103				4415	130191.6
ENG	TR1	NONE	discards	1.00E-04	0.00025	7.00E-05	0.00748	6.00E-04	0.0066	0.00011	0.00019	0	0	0			319445	145914	85851	48469	8711	17020	24446	14062	12979	5327	4230
ENG	TR2	NONE	discards	4.00E-05	0.00013	0.00032	0.00056	0.00114	0.00026	0	0	0	0	0.00021			106861	66311	57345	63616	58724	87267	15721	14802	21642	64875	62793
FRA	GN1	NONE	discards	0	0	0	0	0	0	0	0	0					130216	169758	145478	129344	230271	572425	572425	294925	241877	206263	178288
FRA	LL1	NONE	discards				0	0	0	0										163130	445344	277750	277750	189072	172250		110
FRA	TR1	CPART13B	discards										0.01373	0												1734176	1907198
FRA	TR1	NONE	discards	7.00E-04	0.00087	0.00096	0.05729	0.08661	0.12671	0.00174	0.00471	0.00023	0.00127				6010785	5807538	6038254	5193815	5058616	4486887	4482329	3469228	2149300	16870	573.5
FRA	TR2	NONE	discards	3.00E-05	3.00E-05												43098	12350			883	269645	274203				
GER	TR1	CPART13B	discards								1.00E-05		0.00047											4530		1103	
GER	TR1	NONE	discards	0		0	0.00133	0.00457	0.00115	0	0						19191	12530	35586	27897	23652	3060	4854	2427			
IOM	TR2	NONE	discards				0.00076										181	1172	181	894		649					
IRL	GN1	NONE	discards	0	0			0	0	0	0	0		0			19967	20763	192	3554	13346	9949	3275	551	2075	75	12590
IRL	LL1	NONE	discards								0						7200	18400	3000		9750			1397	7470	3471	2082
IRL	TR1	CPART13C	discards							0.01085	0.00577	0.00249	1.00E-05										117484	108034	17295	12836	183
IRL	TR1	CPART13D	discards							0.05161	0.07157	0.18827	0.00029	0.00077									253879	347386	206350	27041	31825
IRL	TR1	NONE	discards	0.00136	0.00037	0.00086	0.00752	0.00109	0.00391	0.00013	0.00102	1.00E-05	2.00E-05	0			496439	316477	308681	325597	530740	435661	179594	298286	126436	17853	72426
IRL	TR2	NONE	discards	0.00593	0.00181	0.00333	0.10308	0.00177	0.00484	1.00E-05	0	1.00E-05	0	0.00037			1130195	977557	767211	712325	388727	205082	17989	9135	17461	18797	11935
IRL	TR3	NONE	discards	0		0		0	7.00E-05								2198		342	160	317	11321	1323		5915	2503	600
NIR	TR1	NONE	discards	0.00013	0.00037	0.00017	0.0038	0.0119	0.00564	0.00014	2.00E-05			0			338394	162967	87191	29352	33609	38029	45378	23860	3160		11788
NIR	TR2	NONE	discards	0.00028	0.0015	0.00077	0.01	0.01231	0.00204	1.00E-05	0	0	0	0.00713			281887	353511	350269	454128	757758	654124	524483	878592	948262	806188	600828.4
SCO	BT1	NONE	discards	0	0	0	0										60295	151480	119958	81194	1803						
SCO	LL1	NONE	discards	0	0	0	0	0									124695	148430	306947	371404	518888	378736	703396	723065	694992	518307	305940
SCO	TR1	CPART13B	discards							0.01462	0.00989	0.08599											113760	102762	443735	4566	
SCO	TR1	CPART13C	discards							0.02583	0.02943	0.05149	0.07601	0.18983									217928	358116	519551	707987	873638.1
SCO	TR1	CPART13D	discards							0.32526	0.22852	0.65689	0.54798	0.5005									1897026	1855833	1116540	1383078	1193424
SCO	TR1	NONE	discards	0.00142	0.00276	0.00171	0.17263	0.29884	0.32787								5722625	4502156	2635380	2099673	1986483	1990144					
SCO	TR2	CPART13B	discards							0.02045	0	0	0.01803										3733406	2494409	2462700	1905142	
SCO	TR2	CPART13C	discards							0.00762	0	0	0.06258	0.27045									792028	237022	174669	1517753	2874809
SCO	TR2	NONE	discards	0.00424	0.01341	0.01738	0.039	0.06598	0.004								5760703	5334038	4586665	4381098	4693561	4808599					
Sum				0.01423	0.0215	0.02557	0.40345	0.48481	0.48309	0.45838	0.35113	0.98538	0.72039	0.96926			21418390	18982683	16048869	14393175	15122682	14274451	14266509	11430034	9350123	8960275	8275755
(Sum of Fpars)/estimated F				0.0137	0.0217	0.0234	0.4395	0.4595	0.4745	0.5087	0.4175	0.9521	0.7925	0.9791													

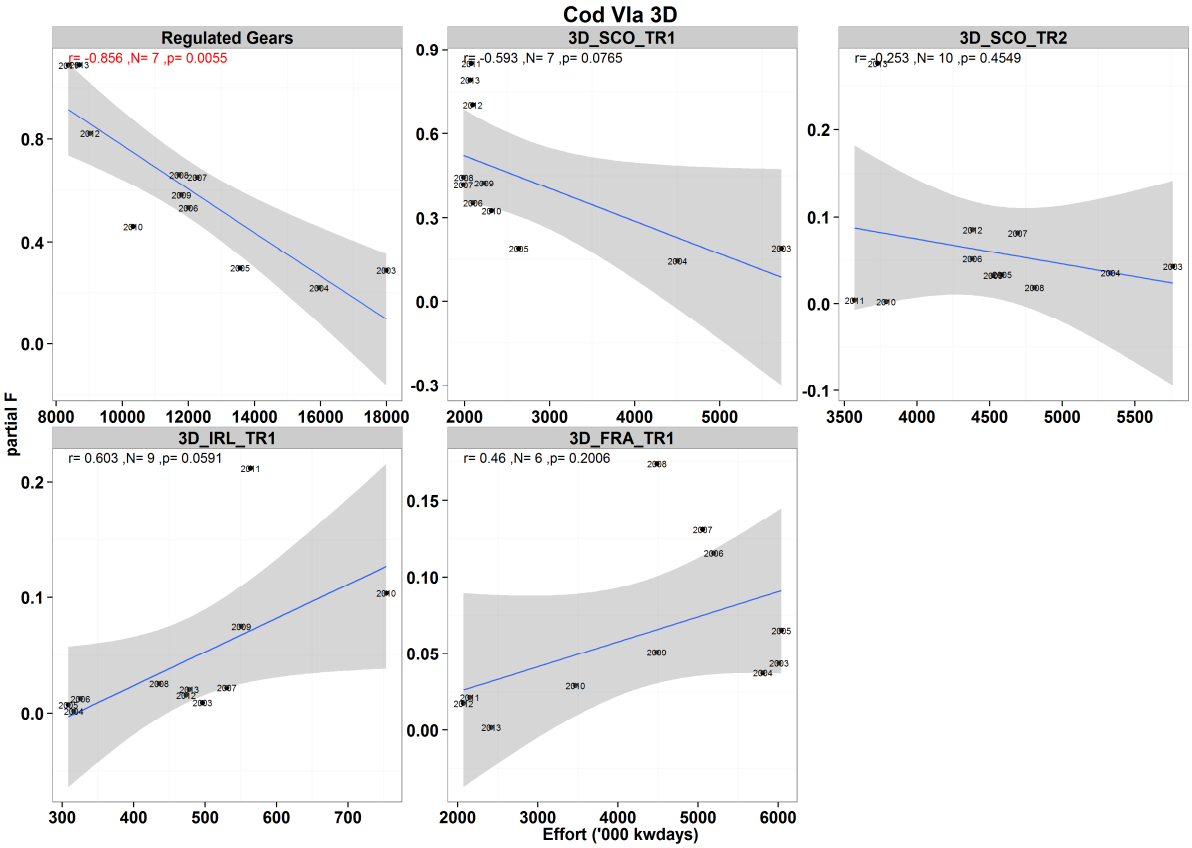


Figure. 5.4.9.1 West of Scotland cod. Regression of partial fishing mortality (based on harvest rate estimates) over effort (kWd) in area 3d for major fisheries, 2003-2013. Frames are listed in order of size of cod catches.

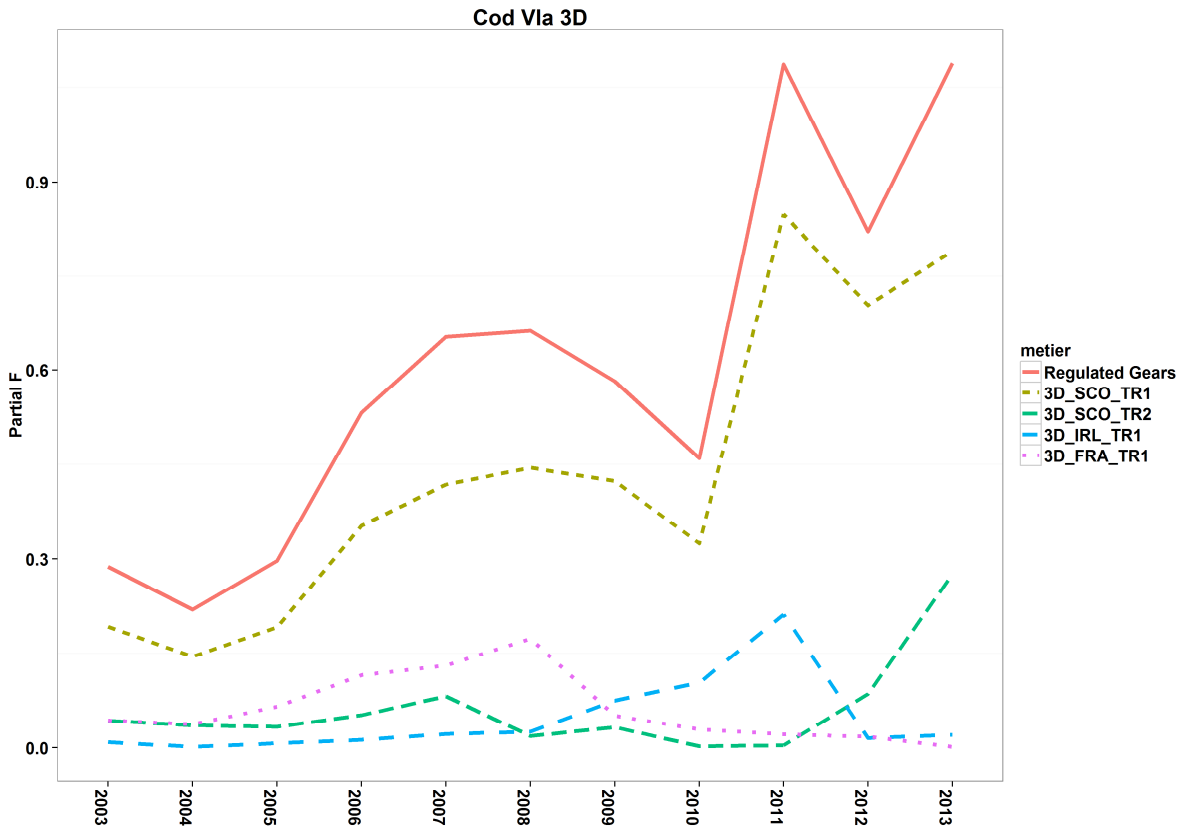


Fig. 5.4.9.2 West of Scotland cod. Time series of partial fishing mortality (based on harvest rate estimates) in area 3d of major fisheries, 2003-2013.

5.4.10 ToR 8 Comparative analyses between trends in fishing mortality and fishing effort by Member State and fisheries and the cod plan (R (EC) No 1342/2008) provisions, in particular with regard to Article 13

The detailed ToR for this task was;

"To quantitatively assess the annual trend in cod mortality that would have resulted from the fishing mortality adjustments in Article 7 and the trends in fishing effort that would have resulted from Article 12 of Council Reg. 1342/2008, for the period 2008 to 2013. STECF is requested to comment on whether and to what extent the Member States application of Article 13, Paragraph 2, points a, b, c and d have supported the reduction of cod fishing mortality as defined in Articles 7 and 9 and whether the increased fishing effort deployed by Member States was commensurate

with the fishing mortality target in 2013. The group is requested to quantify for each Member State and effort group (Annex I to Council Reg. 1342/2008) the partial target fishing mortality of cod, and partial fishing mortality of cod generated in excess of the cod plan, and, if a significant correlation between cod fishing mortality and fishing effort exists, the corresponding amounts of target fishing effort and of the excessive fishing effort in units of kW.days at sea."

In order to address this terms of reference, STECF EWG 14-13 has divided the question into three parts;

1. To quantitatively assess the annual trend in cod mortality that would have resulted from the fishing mortality adjustments in Article 7 and the trends in fishing effort that would have resulted from Article 12 of Council Reg. 1342/2008, for the period 2008 to 2013.

This part of the ToR is considered covered by section 5.4.9 and the 'partial F' tables produced in 'App 07 partial F evaluation by fishery stocks'. As such, no further comment is made in this section.

2. STECF is requested to comment on whether and to what extent the Member States application of Article 13, Paragraph 2, points a, b, c and d have supported the reduction of cod fishing mortality as defined in Articles 7 and 9 and whether the increased fishing effort deployed by Member States was commensurate with the fishing mortality target in 2013.

Figure 5.4.10.1 shows the trends in partial F and effort by Member State for regulated gears, standardised to their 2008 level. It should be noted that effort reductions have not been stipulated under the plan for all gears, and so effort levels should not necessarily have been expected to reduce to 0.24*2008 levels under implementation of the management plan. It can be seen that for Member States other than the UK partial F has reduced since 2008, though such reductions have not always been consistent (i.e. linearly proportional) with changes in effort by regulated gears. In the UK, a reduction in effort is recorded (but less than that to bring effort to 0.24 of effort in 2008) but partial F is recorded as increased in 2011, 2012 and 2013 compared to 2008. STECF EWG 14-13 notes that use of estimated trends in partial fishing mortality are dependent on consistent quota shares between member states and on the consistency of perception of the exploitation status derived from ICES assessments of the west of Scotland cod stock. A comparison of the assessed F trends between the 2013 and 2014 ICES assessments revealed a consistent perception of F trend.

Figure 5.4.10.2 shows the catchability trends in the major cod fisheries west of Scotland. In section 5.4.9 it was noted that Scottish TR1 gear is responsible for the majority of cod partial F and from Figure 5.4.10.2 it can be seen catchability has risen significantly in 2011, 2012 and 2013 for the TR1 gear group.

STECF EWG 14-13 notes that Article 13.2a has not been adopted by any Member State, and so there was no detailed discussion of this provision in this section. Article 13b is for 'effort groups in which the fishing activity of one or more vessels results in a catch composition of less than 5% cod per fishing trips'. STECF has already stated that a catch composition special condition was not necessarily consistent with reductions in cod mortality as it does not control the overall amount of cod caught. STECF went on to further note that Article 13.2b:

"(i) may result in significant cod catches where large volume fisheries catch cod as a bycatch and this results in significant removals, particularly where the cod stock is depleted; (ii) it offers a perverse incentive to catch more of other species in order to reduce the percentage catch of cod. If this derogation

is to contribute to a reduction in exploitation of cod it is important that the total amount of cod caught by vessels under this does not contribute significantly to mortality. Therefore there is a need to have an overall cap on the catch of cod as a % of the TAC for cod taken by all vessels covered by this derogation. Such an approach would require monitoring of total catch, as with fully documented fisheries." STECF 12-13)

STECF EWG 14-13 reiterates these comments. West of Scotland article 13.2b is estimated to have accounted for 9% of regulated gear partial F in 2011 but less than 1% in 2013.

STECF EWG 14-13 notes that Article 13c has only been adopted by IRL and the UK in area 3d. From Table 5.4.9.1 it can be seen catches from vessels operating under article 13c form a minor part of the cod catch. The Irish TR1 sector operating under articles 13.2.c has reduced partial cod F and effort drastically in 2011, 2012 and 2013 (Table 5.4.9.1).

Table 5.4.9.1 also shows that vessels operating under article 13d contribute the majority of cod fishing mortality over all gear types. The partial F for this one category is between 0.57 and 0.70. This is true for landings and discards with discards making a much greater contribution to fishing mortality in recent years. (see Tables 5.4.9.2 to 5.4.9.3). This is mainly a Scottish fishery as the Irish TR1 sector operating under articles 13.2.d has reduced partial cod F and effort drastically in 2012 and 2013 (Table 5.4.9.1).

There are no indications that the Scottish TR1 fishery working under any of articles 13.2.b, c or d have contributed to a reduction in fishing mortality of cod west of Scotland. The contribution to fishing mortality of vessels operating under articles 13.2.b and 13.2.c (TR1 and TR2) is, however, low.

3. The group is requested to quantify for each Member State and effort group (Annex I to Council Reg. 1342/2008) the partial target fishing mortality of cod, and partial fishing mortality of cod generated in excess of the cod plan, and, if a significant correlation between cod fishing mortality and fishing effort exists, the corresponding amounts of target fishing effort and of the excessive fishing effort in units of kW.days at sea

STECF EWG 14-13 notes that the estimation of partial target fishing mortalities for cod by Member State and effort group requires the definition of proportions of overall F to be allocated to each effort group. STECF EWG 14-13 notes that these proportions have not remained stable in recent years as vessels are re-classified to a different special condition. As such, any assumption of target partial F for fleets based on recent years does not seem appropriate. Given a lack of knowledge on shares of partial F values among fisheries the estimation of partial target fishing mortalities is not considered possible.

In addition this analysis requires a significant – and positive – correlation between cod fishing mortality and fishing effort. There is a negative correlation between F and effort for the Scottish TR1 fleet (Figure. 5.4.9.1) which is already seen to take the great majority of cod catch in this area. It is therefore not considered possible to estimate excessive effort.

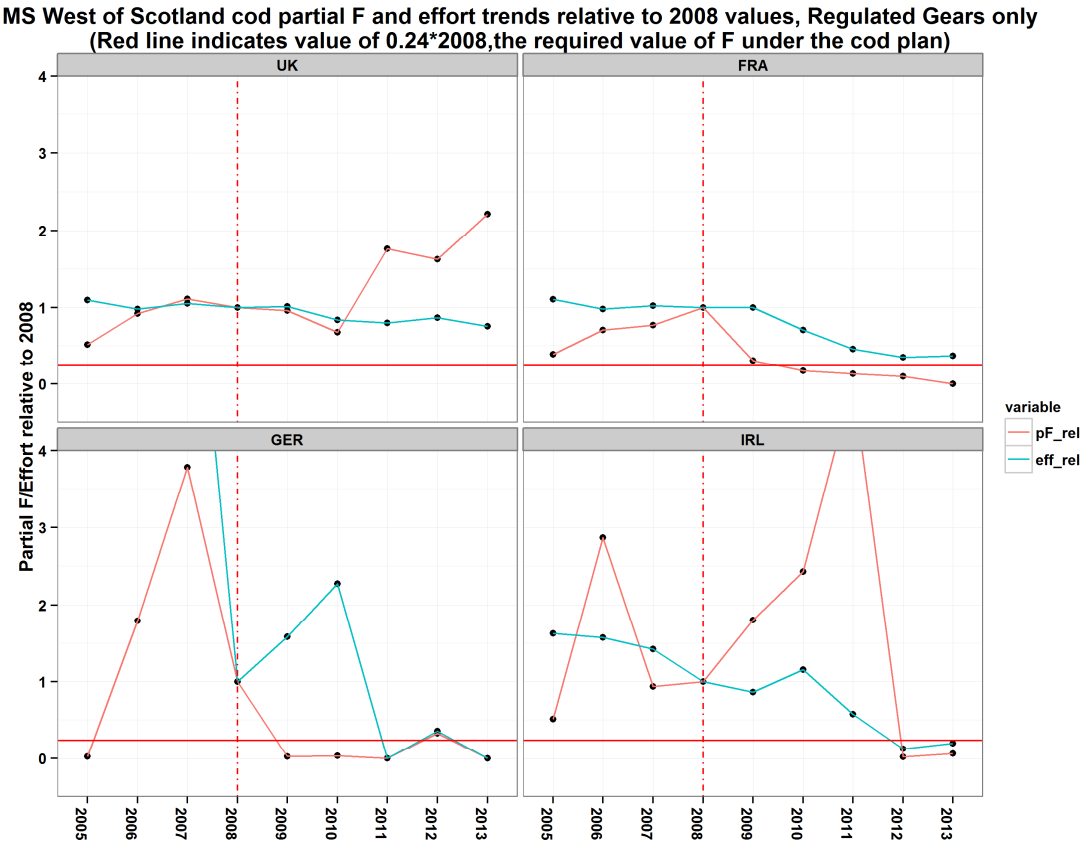


Figure. 5.4.10.1 – West of Scotland cod. Trends in partial fishing mortality as estimated by STECF EWG 14-13 and fishing effort for Member States regulated gears, standardised to 2008 levels. Red lines indicate trends in partial F and blue lines trends in kW days fishing effort by regulated gears. Dotted red vertical line indicates 2008, and solid red horizontal line indicates 0.24*2008 values.

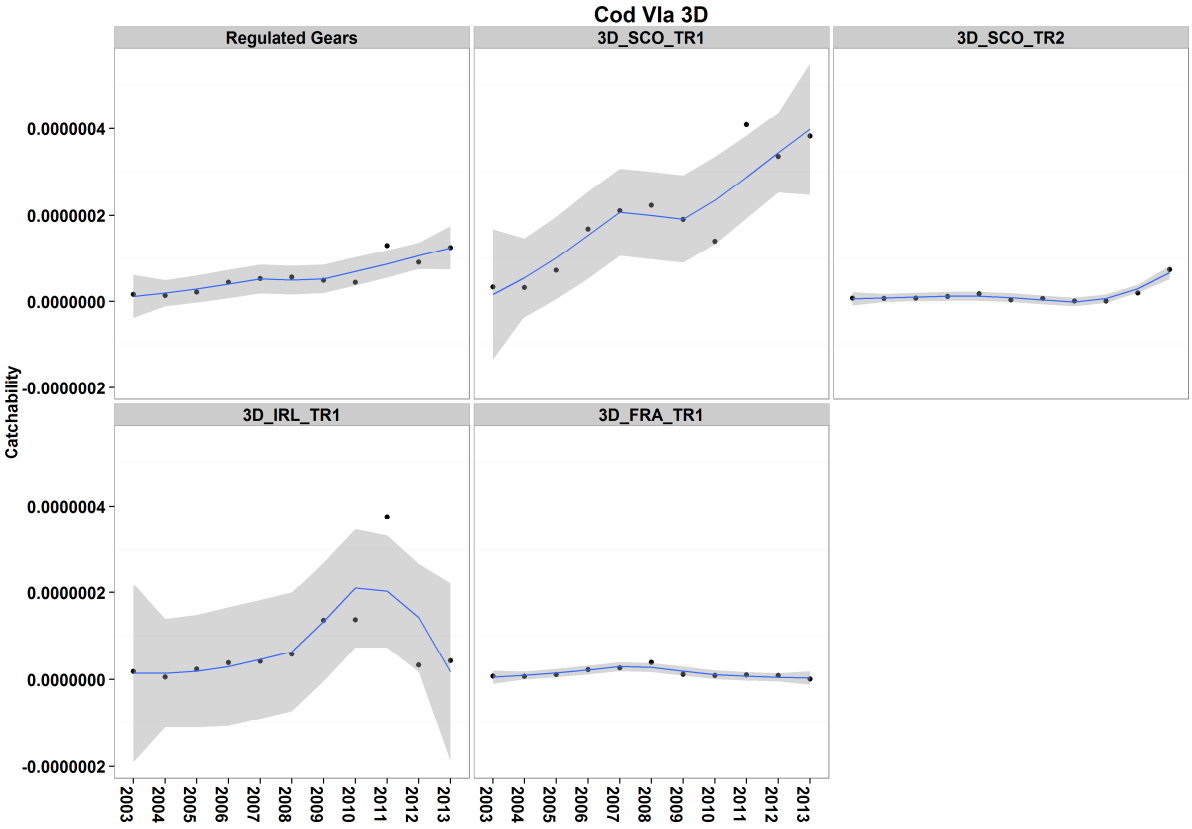


Fig. 5.4.10.2 West of Scotland cod. Trends in catchability (partial F/kw days fishing effort) for all regulated gears and the major fisheries in area 3d. Blue lines indicate a local regression smoother. Grey outlines indicate 95% confidence limits (± 2 standard errors).

5.4.11 ToR 9 Considerations in order to accomplish spatio-temporal pattern in standardized catchability indices for cod

STECF EWG 14-06 notes that estimating catchabilities using landings information can only be meaningful if discarding is low. This is not the case for cod west of Scotland.

5.5 Irish Sea effort regime evaluation in the context of Annex IIA to Council Regulation (EC) No 57/2011)

5.5.1 ToR 1.a Fishing effort in kWdays, GTdays, kW and number of vessels by Member State and fisheries

Effort within the Irish Sea has been compiled for kW*days-at-sea, GT*days-at-sea, capacity in kWs and numbers of vessels. Within the report focus is on kW*Days at sea and brief discussion of the newly available capacity. Information on GT*days at sea and numbers of vessels is available via the website: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1413

Data submissions affecting the Irish Sea were limited to 2013 for all nations bar Ireland which also submitted revised values for 2012, changes were limited to those detailed in Table 5.5.1.1.

Tables 5.5.1.2 and 5.5.1.3 detail nominal effort, in kW*days-at-sea, by nation and then aggregated by gear and special condition according to Annex I of Coun. Reg. 1342/2008 (new cod plan). These tables show a 37% decline in Irish Sea nominal effort since 2000, the majority of which occurred between 2003 and 2009, since 2009 effort has remained relatively constant. In relation to effort by gear, discussions are primarily focused on data from 2003 onwards. This is due to the unavailability of Irish mesh size information prior to 2003 resulting in Irish effort occurring within the 'none' category which encompasses unidentified effort and effort by gears and mesh sizes not regulated under the cod plan. See below for further description of this category.

Irish Sea fisheries are predominantly demersal trawling and seining (TR group). Combined, TR effort mirrors the overall effort trend (Figure 5.5.1.1) representing 55-60% of total Irish Sea effort. This includes the small amount of effort (2-5%) excluded from effort regulation in the last three years. As part of regulated gears, the TR group accounted for over 70% from 2003 and >80% from 2008. Within the TR group, the TR2 category (70-99mm mesh sizes) dominates (Table 5.5.1.3 and Figure 5.5.1.2), and effort had been relatively stable between 2003 and 2008. An effort reduction occurred in 2009, coinciding with the introduction of the current cod plan, since then effort has remained at the reduced level. The majority of TR2 effort is now carried out under Article 13 of Coun. Reg. 1342/2008 (CPart13; Figure 5.5.1.3). CPart13 is broken down into its constitute parts (Figure 5.5.1.4), much of the effort began as category C (avoidance), switching to category B (<5% cod) and then moving to highly selective gear (category A; <1.0% cod). In addition an amount under category A (technical changes) relates to the use of the Swedish grid (prior to exemption under article 11), separator panels (these includes Seltra 300 mm box trawl, 270 mm diamond mesh panel Seltra box trawl, and 300 mm square mesh panel) within the *Nephrops* fishery. A small amount of effort is reported under Article 11 of the regulation (CPart11) since 2010, 4-9%. Effort within TR1 (≥100mm mesh sizes) is currently at a very low level. This group underwent a large decline in effort between 2003 and 2007, since then effort has continued to decline at a slower rate. The majority of TR1 was assigned to CPart13 (mostly category C, and category B to a lesser extent) categories in 2009-2011 (~80%), while in 2012 much of the effort exited CPart13 into the no special condition category.

Beam trawling, exclusively BT2 in the Irish Sea, declined greatly between 2003 and 2008. The gear has continued at a low level over the last three years (accounting for around 10% of Irish Sea effort), and is currently indicating a slight decrease (Table 5.5.1.3). Note, Belgium beam trawl effort within the Irish Sea contains assumed mesh sizes, as described in Section 4. Of the remaining regulated gears, gillnetting

occurs at very low levels <0.5% (Figure 5.5.1.1) while GT1 and LL1 show negligible effort accounting for less than 0.5% of total effort.

Category ‘none none’ represents gear types and mesh sizes not regulated by Coun. Reg. 1342/2008 effort restrictions. This category includes effort assigned to special condition CPart11 which is exempt from effort restrictions through the use of cod avoidance measures (discussed above). A large proportion of the ‘none none’ group prior to 2003 was due to Irish effort reported without mesh size information. Once Irish mesh size information became available in 2003, the ‘none’ category decreased substantially. Effort within this category has increased over the last seven years and currently accounts for 44% of Irish Sea effort. These increases primarily result from dredge and pot activity (Figure 5.5.5.1), in addition to the appearance of CPart11 effort within this category. Low levels of effort also occur within the pelagic trawl category.

Capacity was submitted at the highest level of aggregation and summations across certain groups are misleading due to double counting of vessels active within the area over multiple metiers, years or quarters. The annual values presented here and available on the website are the maximum capacity of a quarter. However, regulated gears (Table 5.5.1.5) and unregulated gear capacity (Table 5.5.1.6) can be observed. Since 2009 there has been a slight general increase in capacity, with an unexplained peak in 2012 dropping once more in 2013. Northern Ireland and Ireland have the greatest capacity of those provided for this area, utilizing primarily TR2 gears. Dredges have the greatest unregulated capacity with a slow increasing trend over time, primarily Scottish, followed by France.

Table 5.5.1.1. Irish Sea relative differences in nominal effort (kW*days at sea) to 2013 submissions by Member State by Annex I, Coun. Reg. 1342/2008. Only those differing combinations are displayed. Sorted by gear, derogation (SPECON), and country.

ANNEX	REG AREA	REG GEAR	COUNTRY	SPECON	LENGTH	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
IIA	3C	POTS	IRL	NONE	O10T15M	0	0	0	0	0	0	0	0	0	0.002
IIA	3C	TR2	IRL	CPART13A	O10T15M	0	0	0	0	0	0	0	0	0	0.009
IIA	3C	DREDGE	IRL	NONE	O10T15M	0	0	0	0	0	0	0	0	0	0.017
IIA	3C	TR1	IRL	NONE	O15M	0	0	0	0	0	0	0	0	0	0.046
IIA	3C	DREDGE	IRL	NONE	O15M	0	0	0	0	0	0	0	0	0	0.151
IIA	3C	TR2	IRL	CPART13A	O15M	0	0	0	0	0	0	0	0	0	0.222
IIA	3C	TR2	IRL	NONE	O15M	0	0	0	0	0	0	0	0	0	1.966

Table 5.5.1.2. Irish Sea trends in nominal effort (kW*days at sea) by gear groups of Annex I, Coun. Reg. 1342/2008 and Member State, 2000-2013. Sorted by gear, derogation (SPECON), and country. Data qualities are summarised in Section 4.

ANNEX	AREA	GEAR	SPECON	COUNTRY	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
IIA	3C	BT2	CPART13B	ENG								718		8619	
IIA	3C	BT2	NONE	BEL	1884843	1482831	1694567	1153947	956953	554841	624989	649225	690853	616775	368886
IIA	3C	BT2	NONE	ENG	172354	68579	161500	59199	31112	17349	5808	1810	41222	13240	221
IIA	3C	BT2	NONE	GBJ	40878	42260	3542								
IIA	3C	BT2	NONE	IRL	860849	414446	514653	481404	550975	374494	173927	218054	212313	179498	142034
IIA	3C	BT2	NONE	NED			5884								
IIA	3C	BT2	NONE	SCO					1074	1378					
IIA	3C	GN1	CPART13B	ENG										765	
IIA	3C	GN1	CPART13B	NIR							2140				
IIA	3C	GN1	NONE	ENG	14872	12326	10011	8378	3930	4297	684	2260	3602	1097	190
IIA	3C	GN1	NONE	FRA			838							4414	
IIA	3C	GN1	NONE	IRL	92103	63069	26672	29531	47941	40957	22219	22172	20333	9000	2925
IIA	3C	GN1	NONE	NED				161							715
IIA	3C	GN1	NONE	NIR		222									
IIA	3C	GN1	NONE	SCO			895								
IIA	3C	GT1	NONE	ENG				475	656	1066	2788	984	1476		2144
IIA	3C	GT1	NONE	FRA										180	
IIA	3C	GT1	NONE	IRL						1327	1237				
IIA	3C	LL1	NONE	ENG	44138	58414	93773	59656	12238	840	924		1543	5001	2059.4
IIA	3C	LL1	NONE	IRL		800				24199		620	146	3625	
IIA	3C	LL1	NONE	SCO	3247										2610
IIA	3C	LL1	NONE	SPN										372	269.75
IIA	3C	TR1	CPART11	IOM										687	10486.15
IIA	3C	TR1	CPART13A	NIR											30993.97
IIA	3C	TR1	CPART13B	ENG				2541	2310		5544	5319		10416	
IIA	3C	TR1	CPART13B	NIR							29532	47406	25968	28260	
IIA	3C	TR1	CPART13B	SCO								390		536	
IIA	3C	TR1	CPART13C	ENG							16316	19792	14364	7988	7100
IIA	3C	TR1	CPART13C	NIR							364594	306824	147347	12091	7276
IIA	3C	TR1	CPART13C	SCO								1273	407	13504	2588.13
IIA	3C	TR1	NONE	ENG	399886	197351	94201	66364	14536	5932					
IIA	3C	TR1	NONE	FRA	264447	167253	180515	109174	67487	19701	19701	6668	6138	18034	4739
IIA	3C	TR1	NONE	IOM	9070	362	172		649	895					
IIA	3C	TR1	NONE	IRL	381119	157955	87263	84550	141442	73625	60348	73585	56161	127170	174540
IIA	3C	TR1	NONE	NED						442					734
IIA	3C	TR1	NONE	NIR	2055358	1162035	872476	785815	343025	498488					
IIA	3C	TR1	NONE	SCO	92514	32104	3889	3104							
IIA	3C	TR2	CPART11	IOM							21982	22808	153825	108428	114025.8
IIA	3C	TR2	CPART11	IRL								107511	231706	206698	196939
IIA	3C	TR2	CPART11	SCO								9055			
IIA	3C	TR2	CPART13A	IRL							98492	115391	392685	1205066	783550
IIA	3C	TR2	CPART13A	NIR										240258	2788701
IIA	3C	TR2	CPART13B	ENG				12243	17787	15246	11319	116327	46765	87715	9073
IIA	3C	TR2	CPART13B	NIR							235743	1450621	1820787	2225228	
IIA	3C	TR2	CPART13B	SCO							23350	17981	42035	82657	
IIA	3C	TR2	CPART13C	ENG							160679	65836	109946	66348	140236
IIA	3C	TR2	CPART13C	IOM											8127.41
IIA	3C	TR2	CPART13C	NIR							2895541	1336192	863528	213809	
IIA	3C	TR2	CPART13C	SCO							7569		1713	28113	90783.54
IIA	3C	TR2	NONE	BEL		13541	43486	34052	76789	67534	29980	14283	29125	20947	13525
IIA	3C	TR2	NONE	ENG	211774	347848	287791	235204	225834	204211					
IIA	3C	TR2	NONE	FRA	588		2352		810					395	
IIA	3C	TR2	NONE	IOM	18628	10826	27205	5427	29763	14592					
IIA	3C	TR2	NONE	IRL	1242769	1386883	1475114	1452830	1583605	1300696	733216	673091	445123	34019	
IIA	3C	TR2	NONE	NIR	3395323	3138292	3213416	2959511	3143032	3326397					
IIA	3C	TR2	NONE	SCO	44656	93770	34415	7435	16808	21995					
IIA	3C	TR3	NONE	DEN	992										
IIA	3C	TR3	NONE	ENG	134										
IIA	3C	TR3	NONE	IRL	900	90	3305	960		436			179	634	381
Total of regulated gears					11231442	8851257	8837935	7551961	7268756	6570938	5548622	5286196	5359290	5581587	4905854
IIa	3c	none	none	BEL	528					53686		41044	65538	16550	
IIa	3c	none	none	ENG	648435	546205	596195	688014	589585	506163	442687	490590	459843	527265	510547.4
IIa	3c	none	none	FRA	1694				906	2844	2844	1180	4982	1296	131
IIa	3c	none	none	GBG						397	11116	1119			
IIa	3c	none	none	GBJ	74180	76378	17726	11996	35952	53500	78825	62274	52172	68016	59920
IIa	3c	none	none	IOM	10154	6782	5194	10315	14170	47908	3908	10953	37165	37298	382160
IIa	3c	none	none	IRL	611981	830250	417215	436077	445217	396694	437256	630794	670709	760399	727317
IIa	3c	none	none	NED		14520	12797	525	4725	54075	17118	3960		663	7920
IIa	3c	none	none	NIR	303426	256628	249139	273483	289130	352026	270031	307264	291270	303954	530639.9
IIa	3c	none	none	SCO	901594	725105	807056	603817	940554	1260522	1371630	1028690	1087235	949306	1049857
IIa	3c	none	none	SPN										735	323.4
Total of unregulated gears					2551992	2455868	2105322	2024227	2320239	2727815	2635415	2577868	2668914	2665482	3268816
Overall total					13783434	11307125	10943257	9576188	9588995	9298753	8184037	7864064	8028204	8247069	8174670

Table 5.5.1.3 Trend in nominal effort (kW*days at sea) by effort group (Coun. Reg. 1342/2008), 2003-2013.

Annex	REG AREA	REG GEAR	SPECON	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Relative change to 2004	Relative change to 2009
			CPart13a											30994		
IIa	3c	TR1	CPart13B				2541	2310		35076	53115	25968	39212			
IIa	3c	TR1	CPart13c							380910	327889	162118	33583	16964		-0.96
IIa	3c	TR1	none	3202394	1717060	1238516	1049007	567139	599083	80049	80253	62299	145204	180013	-0.90	1.25
IIa	**3c**	**TR1 Total**		**3202394**	**1717060**	**1238516**	**1051548**	**569449**	**599083**	**496035**	**461257**	**250385**	**217999**	**227971**	**-0.87**	**-0.54**
IIa	3c	TR2	CPart13a							98492	115391	392685	1445324	3572251		35.27
IIa	3c	TR2	CPart13B				12243	17787	15246	270412	1584929	1909587	2395600	9073		-0.97
IIa	3c	TR2	CPart13c							3063789	1402028	975187	308270	239147		-0.92
IIa	3c	TR2	none	4913738	4991160	5083779	4694459	5076641	4935425	763196	687374	474248	55361	13525	-1.00	-0.98
IIa	**3c**	**TR2 Total**		**4913738**	**4991160**	**5083779**	**4706702**	**5094428**	**4950671**	**4195889**	**3789722**	**3751707**	**4204555**	**3833996**	**-0.23**	**-0.09**
IIa	3c	TR3	none	2026	90	3305	960		436			179	634	381	**3.23**	
IIa	**3c**	**TR3 Total**		**2026**	**90**	**3305**	**960**		**436**			**179**	**634**	**381**	**3.23**	
IIa	3c	BT2	CPart13B								718		8619			
IIa	3c	BT2	none	2958924	2008116	2380146	1694550	1540114	948062	804724	869089	944388	809513	511141	-0.75	-0.36
IIa	**3c**	**BT2 Total**		**2958924**	**2008116**	**2380146**	**1694550**	**1540114**	**948062**	**804724**	**869807**	**944388**	**818132**	**511141**	**-0.75**	**-0.36**
IIa	3c	GN1	CPart13B							2140			765			-1.00
IIa	3c	GN1	none	106975	75617	38416	38070	51871	45254	22903	24432	23935	14511	3830	-0.95	-0.83
IIa	**3c**	**GN1 Total**		**106975**	**75617**	**38416**	**38070**	**51871**	**45254**	**25043**	**24432**	**23935**	**15276**	**3830**	**-0.95**	**-0.85**
IIa	3c	GT1	none				475	656	2393	4025	984	1476	180	2144		-0.47
IIa	**3c**	**GT1 Total**					**475**	**656**	**2393**	**4025**	**984**	**1476**	**180**	**2144**		**-0.47**
IIa	3c	LL1	none	47385	59214	93773	59656	12238	25039	924	620	1689	8998	4939	-0.92	4.35
IIa	**3c**	**LL1 Total**		**47385**	**59214**	**93773**	**59656**	**12238**	**25039**	**924**	**620**	**1689**	**8998**	**4939**	**-0.92**	**4.35**
IIa	3c	none	none	2551992	2455868	2105322	2024227	2320239	2727815	2635415	2577868	2668914	2665482	3268816	0.33	0.24
IIa	3c	TR1	CPART11										687	10486		
IIa	3c	TR2	CPART11							21982	139374	385531	315126	310965		**13.15**
IIa	**3c**	**None Total**		**2551992**	**2455868**	**2105322**	**2024227**	**2320239**	**2727815**	**2657397**	**2717242**	**3054445**	**2981295**	**3590267**	**0.46**	**0.35**
Grand Total				**13783434**	**11307125**	**10943257**	**9576188**	**9588995**	**9298753**	**8184037**	**7864064**	**8028204**	**8247069**	**8174670**	**-0.28**	**0.00**

Table 5.5.1.4. Irish Sea trends in unregulated effort (kW*days at sea), according to Annex 1 of Con. Reg. 1342/2008, by major gear type, 2003-2013.

Annex	Area	REG GEAR	COUNTRY	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
IIa	3c	BEAM	ENG	7360	1966	25324	8221	8992	26350	9508	1788	988	186	26060
IIa	3c	BEAM	IRL	23853	159015									
IIa	3c	BEAM	NED										663	
IIa	3c	BEAM	NIR				145		3639	370				720
IIa	3c	DEM_SEIN	ENG				142							
IIa	3c	DEM_SEIN	IRL		759									
IIa	3c	DREDGE	BEL						53686		41044	65538	16550	
IIa	3c	DREDGE	ENG	225232	197412	196065	313285	238677	265214	212467	261604	303072	382980	326296
IIa	3c	DREDGE	FRA								251	4401		131
IIa	3c	DREDGE	GBJ	2968										
IIa	3c	DREDGE	IOM	8573	5387	5194	9987	14170	17732	3908	10953			347946
IIa	3c	DREDGE	IRL	413698	342029	170130	151968	223441	176175	197039	281497	353159	386321	424537
IIa	3c	DREDGE	NED				525	4725	54075	17118				
IIa	3c	DREDGE	NIR	135202	137511	111692	99662	106536	145080	100503	113048	77853	121370	287671
IIa	3c	DREDGE	SCO	894237	724139	777599	572146	905364	1226238	1276319	943377	1013183	872719	968500
IIa	3c	NONE	FRA					906						
IIa	3c	NONE	IRL						96				220	20799
IIa	3c	NONE	SCO			2130								1780
IIa	3c	OTTER	BEL	528										
IIa	3c	OTTER	ENG	62	76	1416	112	820				188	95	
IIa	3c	OTTER	FRA										736	
IIa	3c	OTTER	IRL	24648	99895	4109	3940			455	2380	291	4007	1894
IIa	3c	OTTER	NED											
IIa	3c	OTTER	NIR	696		179	2560				3120		9550	16767
IIa	3c	OTTER	SCO	5792	966		414				828		290	1520
IIa	3c	PEL_SEINE	FRA	1694								285	560	
IIa	3c	PEL_SEINE	IRL	560	5872									
IIa	3c	PEL_SEINE	NIR	45458	22042	61552	34310		1131					
IIa	3c	PEL_SEINE	SPN										735	323
IIa	3c	PEL_TRAW	ENG	12729		7200					13440			
IIa	3c	PEL_TRAW	FRA								792			
IIa	3c	PEL_TRAW	IRL	48375	146806	127361	59473	24970	13968	10980	74946	38999	81914	48761
IIa	3c	PEL_TRAW	NED		14520	12797					3960			7920
IIa	3c	PEL_TRAW	NIR	87890	65982	49486	93380	140424	104430	92084	108198	167634	117316	146633
IIa	3c	PEL_TRAW	SCO			14700								
IIa	3c	POTS	ENG	403052	346751	366190	366254	341096	214599	220712	213758	155595	144004	158192
IIa	3c	POTS	FRA						2844	2844	137	296		
IIa	3c	POTS	GBG						397	11116	1119			
IIa	3c	POTS	GBJ	71212	76378	17726	11996	35952	53500	78825	62274	52172	68016	59920
IIa	3c	POTS	IOM	1581	1395		328		30176			37165	37298	34214
IIa	3c	POTS	IRL	100847	75874	115615	220696	196806	206455	228782	271971	278260	287937	231326
IIa	3c	POTS	NIR	34180	31093	26230	43426	42170	97746	77074	82898	45783	55718	78849
IIa	3c	POTS	SCO	1565		12627	31257	35190	34284	95311	84485	74052	76297	78057
IIa	3c	TR1	IOM										687	10486
IIa	3c	TR2	IOM							21982	22808	153825	108428	114026
IIa	3c	TR2	IRL								107511	231706	206698	196939
IIa	3c	TR2	SCO								9055			
Grand Total				2551992	2455868	2105322	2024227	2320239	2727815	2657397	2717242	3054445	2981295	3590267

Table 5.5.1.5. Irish Sea trends in maximum capacity (kW) of regulated gears, according to Annex 1 of Con. Reg. 1342/2008, by major gear type, 2000-2013.

ANNEX	AREA	GEAR	SPECON	COUNTRY	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
IIa	3c	BT2	CPART13B	ENG								221		221	
IIa	3c	BT2	NONE	BEL	10533	10901	10176	8008	7614	5403	5251	5590	4958	4432	2976
IIa	3c	BT2	NONE	ENG	9400	3317	4452	2444	880	881	663	406	914	628	221
IIa	3c	BT2	NONE	GBJ	1216	1357	738								
IIa	3c	BT2	NONE	IRL							1578	1798	2240	1798	2759
IIa	3c	BT2	NONE	NED											
IIa	3c	BT2	NONE	SCO					537	106					
IIa	3c	GN1	CPART13B	ENG										741	
IIa	3c	GN1	CPART13B	NIR							428				
IIa	3c	GN1	NONE	ENG	851	678	478	205	396	205	89	473	205	205	95
IIa	3c	GN1	NONE	FRA										1177	
IIa	3c	GN1	NONE	IRL							1492	1620	1388	1402	565
IIa	3c	GN1	NONE	NED											
IIa	3c	GN1	NONE	NIR		111									
IIa	3c	GN1	NONE	SCO			551								
IIa	3c	GT1	NONE	ENG				95	82	82	82	82	82		268
IIa	3c	GT1	NONE	FRA										180	
IIa	3c	GT1	NONE	IRL							96				
IIa	3c	LL1	NONE	ENG	498	1238	1634	1100	492	84	84		294	294	294
IIa	3c	LL1	NONE	ESP										186	
IIa	3c	LL1	NONE	IRL								263	146	657	
IIa	3c	LL1	NONE	SCO	492										522
IIa	3c	TR1	CPART11	IOM										545	979
IIa	3c	TR1	CPART13A	NIR											2048
IIa	3c	TR1	CPART13B	ENG				231	231		231	231		541	
IIa	3c	TR1	CPART13B	NIR							428	428	428	1249	
IIa	3c	TR1	CPART13B	SCO								195		134	
IIa	3c	TR1	CPART13C	ENG							509	509	447	648	753
IIa	3c	TR1	CPART13C	NIR							4484	2915	2567	783	428
IIa	3c	TR1	CPART13C	SCO								413	356	585	585
IIa	3c	TR1	NONE	ENG	4129	1997	1698	841	569	767					
IIa	3c	TR1	NONE	FRA										3700	978
IIa	3c	TR1	NONE	IOM	632	181	172		216	336					
IIa	3c	TR1	NONE	IRL							3110	4459	4566	3757	4408
IIa	3c	TR1	NONE	NED											
IIa	3c	TR1	NONE	NIR	16673	10864	9460	7669	5162	6183					
IIa	3c	TR1	NONE	SCO	1637	1829	373	537							
IIa	3c	TR2	CPART13A	IRL							1131	1131	4070	12147	9907
IIa	3c	TR2	CPART13A	NIR										15777	24586
IIa	3c	TR2	CPART13B	ENG				231	231	231	231	1178	956	1680	522
IIa	3c	TR2	CPART13B	NIR							1997	10847	14370	20771	
IIa	3c	TR2	CPART13B	SCO							1104	1170	1783	1642	
IIa	3c	TR2	CPART13C	ENG							2643	1286	1943	1335	2463
IIa	3c	TR2	CPART13C	IOM											198
IIa	3c	TR2	CPART13C	NIR							19207	14114	8036	6816	
IIa	3c	TR2	CPART13C	SCO							652		566	1000	3310
IIa	3c	TR2	NONE	BEL		336	553	1180	1149	1724	1138	1188	982	495	495
IIa	3c	TR2	NONE	ENG	3724	3290	3336	3395	2533	2794					
IIa	3c	TR2	NONE	FRA										395	
IIa	3c	TR2	NONE	IOM	826	453	952	592	966	680					
IIa	3c	TR2	NONE	IRL							7953	8420	7333	3685	
IIa	3c	TR2	NONE	NIR	21072	17375	19539	18722	17946	18373					
IIa	3c	TR2	NONE	SCO	1499	1797	1275	492	797	596					
IIa	3c	TR3	NONE	DEN	534										
IIa	3c	TR3	NONE	ENG	134										
IIa	3c	TR3	NONE	IRL									179	634	221
Regulated maximum capacity															59581

Table 5.5.1.6. Irish Sea trends in maximum effort (kW) of unregulated gears, according to Annex 1 of Con. Reg. 1342/2008, by major gear type, 2003-2013.

ANNEX	AREA	GEAR	SPECON	COUNTRY	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
IIa	3c	TR2	CPART11	IOM							846	884	2430	2512	2193
IIa	3c	TR2	CPART11	IRL								1131	1131	1131	2054
IIa	3c	TR2	CPART11	SCO								292			
IIa	3c	BEAM	NONE	ENG	354	134	210	142	218	313	267	172	76	186	420
IIa	3c	BEAM	NONE	IRL											
IIa	3c	BEAM	NONE	NED											
IIa	3c	BEAM	NONE	NIR				145		417	226				240
IIa	3c	DEM_SEINE	NONE	ENG				142							
IIa	3c	DEM_SEINE	NONE	IRL											
IIa	3c	DREDGE	NONE	BEL						494		210	210	210	
IIa	3c	DREDGE	NONE	ENG	2215	3041	2589	3622	3131	4022	3324	4815	5659	6448	5523
IIa	3c	DREDGE	NONE	FRA											131
IIa	3c	DREDGE	NONE	GBJ	212										
IIa	3c	DREDGE	NONE	IOM	714	181	577	739	1256	1356	193	193			3707
IIa	3c	DREDGE	NONE	IRL							3912	5899	4004	8458	3734
IIa	3c	DREDGE	NONE	NED											
IIa	3c	DREDGE	NONE	NIR	1899	1551	2123	1947	2040	2562	2325	2037	2076	3592	4183
IIa	3c	DREDGE	NONE	SCO	11796	11479	11002	10875	13545	15893	15297	13424	11514	13577	13774
IIa	3c	NONE	NONE	FRA											
IIa	3c	NONE	NONE	IRL										220	836
IIa	3c	NONE	NONE	SCO			213								595
IIa	3c	OTTER	NONE	BEL	207										
IIa	3c	OTTER	NONE	ENG	62	76	354	112	466				94	95	
IIa	3c	OTTER	NONE	FRA										736	
IIa	3c	OTTER	NONE	IRL							309	408	221	547	160
IIa	3c	OTTER	NONE	NIR	309		179	1280				240		1469	3128
IIa	3c	OTTER	NONE	SCO	585	276		207				276		193	585
IIa	3c	PEL_SEINE	NONE	ESP										368	
IIa	3c	PEL_SEINE	NONE	FRA										280	
IIa	3c	PEL_SEINE	NONE	IRL											
IIa	3c	PEL_SEINE	NONE	NIR	6494	6494	6494	6494		809					
IIa	3c	PEL_TRAWL	NONE	ENG	4320		4320					4320			
IIa	3c	PEL_TRAWL	NONE	FRA											
IIa	3c	PEL_TRAWL	NONE	IRL							1096	1090	2415	3560	3334
IIa	3c	PEL_TRAWL	NONE	NED											
IIa	3c	PEL_TRAWL	NONE	NIR	3558	2749	2749	2749	3128	3128	3128	3128	11128	11128	11128
IIa	3c	PEL_TRAWL	NONE	SCO			2940								
IIa	3c	POTS	NONE	ENG	2996	2588	2510	2505	2432	1900	2096	2041	1520	2006	1861
IIa	3c	POTS	NONE	FRA											
IIa	3c	POTS	NONE	GBG						170	298	298			
IIa	3c	POTS	NONE	GBJ	542	675	179	179	214	214	393	214	214	214	214
IIa	3c	POTS	NONE	IOM	93	93		328		328			198	198	455
IIa	3c	POTS	NONE	IRL							2924	2449	2247	2554	2681
IIa	3c	POTS	NONE	NIR	575	553	245	638	954	1308	1066	1183	707	745	690
IIa	3c	POTS	NONE	SCO	239		207	207	207	1102	1102	643	436	570	562
Unregulated maximum capacity															62189

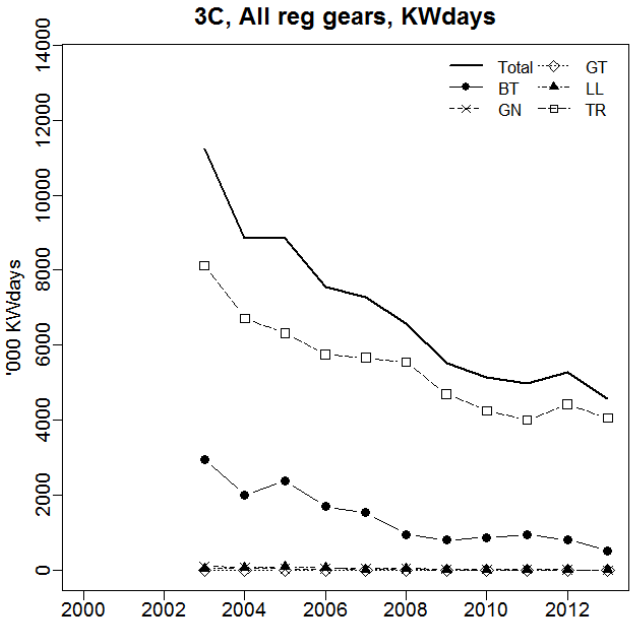


Figure 5.5.1.1. Irish Sea. Trend in regulated gear nominal effort (kW*days-at-sea) by Coun. Reg. 1342/2008, 2003-2013. N.B. CPart11 effort is excluded from this plot.

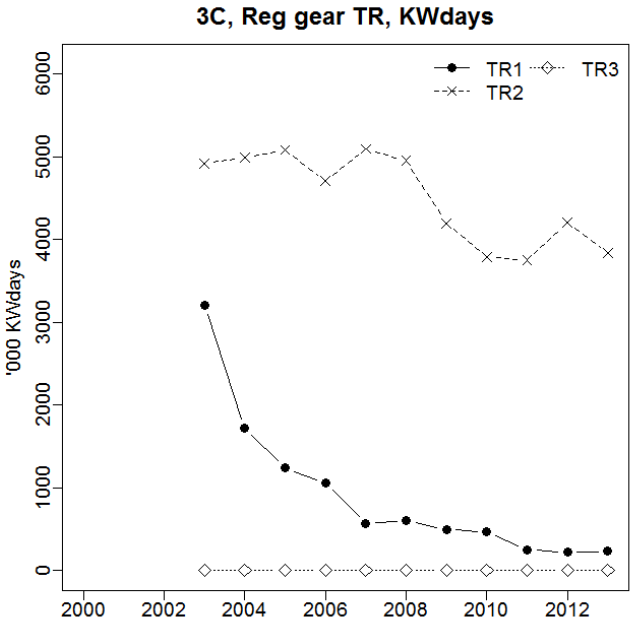


Figure 5.5.1.2. Irish Sea. Trend in regulated gear TR (demersal trawl and Danish seine) nominal effort (kW*days-at-sea) by Coun. Reg. 1342/2008, 2003-2013. N.B. CPart11 effort is excluded from this plot.

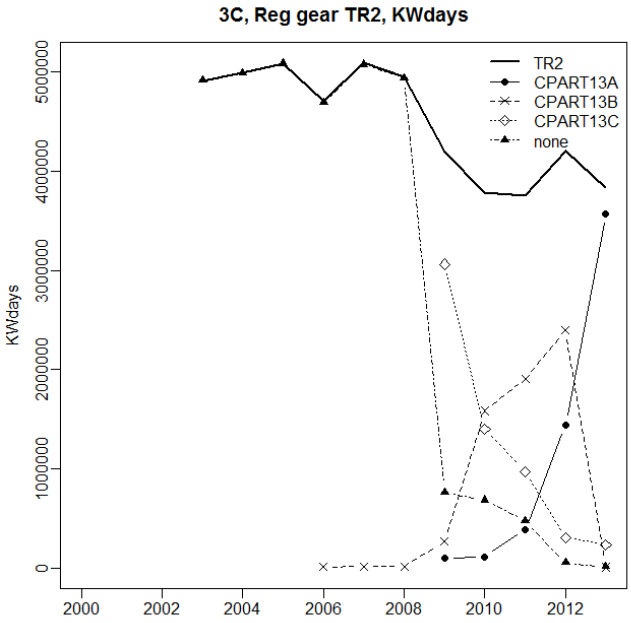


Figure 5.5.1.3. Irish Sea. Trend in special conditions of regulated TR2 (demersal trawl and Danish seine 70-99mm) gear nominal effort (kW*days-at-sea) by Coun. Reg. 1342/2008, 2003-2013.

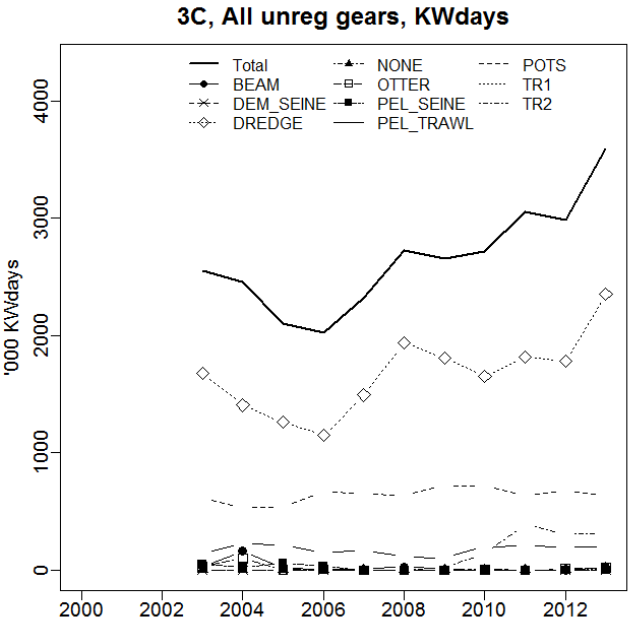


Figure 5.5.1.4. Irish Sea. Effort composition in kW*Days at sea for unregulated gears according to Coun. Reg. 1342/2008 (category none), 2003-2013. N.B. this plot contains TR1 and TR2 CPart11 effort as TR1 and TR2

5.5.2 ToR 1.b and c Catches (landings and discards) of cod and non-cod species in weight and numbers at age by fisheries

Table 5.5.2.1 lists the landings and available discards for the main species by gear groups relating to Coun. Reg. 1342/2008. For the reason of space limitation of this report, the following sections represent the landings in weight for monkfish (ANF), cod (COD), haddock (HAD), Nephrops (NEP), plaice (PLE), rays (RAJ), sole (SOL), and whiting (WHG) from 2004 to 2013. Additional data queries for other species may be provided depending on data provisions of the national catches by the experts or national institutes. The data given in the table forms the basis of Figure 5.5.2.1 which is displaying the relative landings compositions by gear groups for the years 2003-2013.

Discard information available within the Irish Sea is incomplete. Discard data is not available for all species and/or years within each gear grouping. TR2 and BT2 have the most complete data particularly in more recent years, for species such as cod, haddock, plaice, rays, and whiting. Some discard data is also available for the CPart13 and CPart11 categories, however, the method of raising used at the national level to generate these discard values tend not to be specific to these categories and thus not a true representation of the category discards. Availability of discard information in TR1 has improved in recent years. Northern Ireland TR1 fisheries are operating under 100% fleet observers coverage.

In relation to overall landings by species (combined regulated and unregulated >10m vessels), *Nephrops* dominate Irish Sea landings and have been above 9kt since 2007, averaging around 10.5kt until 2013 when landings declined to ~9.3kt. Nephrops landings peaked in 2012 at ~11.3kt. Plaice and anglerfish landings have both declined over the last 10 years. Plaice shows some increase in landings in 2010 declining again to 2013 landings less than half those of 2004. Since 2008 anglerfish landings have been on average ~240t, dipping to less than 200t in 2010. Haddock has declined since the high observed in 2007, with landings in 2013 the lowest (~250t) in the last 10 years. 2013 sole landings are also the lowest in the last 10 years, at less than 150t, following a declining trend from 2005 where landings peaked at over 800t. Whiting and cod landings are at their lowest levels in 2013 (~30t and ~200t respectively).

Below the primary gear categories with landings from the Irish Sea are discussed. As a first note, the drop in cod landings between 2008 and 2009 results primarily from reallocation of Irish cod landings from ICES rectangles 33E2 and 33E3 which are immediately north of the Irish Sea–Celtic Sea boundary into the Celtic Sea from 2009 onwards due to uncertainty in the origin of these landings. This reallocation is in line with the practise of the ICES stock assessment working group (ICES WGCSE) where between ~50t and >500t of cod have been reallocated annually since 2004.

Nephrops are the primary focus of the TR2 category (Figure 5.5.2.1, note the figure excludes CPart11 whose target species is *Nephrops*). Other components of the TR2 category occur at comparatively low levels, including cod, haddock, whiting, plaice, and anglerfish. In the last two years this category has accounted for over half of cod landings from ≥10m vessels (less when considering <10m landings). Discarding of haddock, plaice and whiting occurs within this gear category and can be high in some years.

The species composition of TR1, the larger mesh size group, is very different to TR2. Up until 2011 landings primarily consist of cod and haddock, with lower quantities of hake. In the last two years the composition has shifted, although haddock remains in the greatest volumes, secondary species encompass similar quantities of cod, plaice and *Nephrops*. With a variety of other species occurring at low levels e.g. whiting (Figure 5.5.2.1). Cod landings for this category average around 28% for the most recent 3 years. Previously, TR1 had accounted for the majority of both haddock and hake landings at ~70% or more, in

the last two years however, this has changed. This gear now represents only ~50% of haddock landings, and <15% of hake landings. The majority of these species are now landed by TR2 gear.

Beam trawls operating within the Irish Sea belong solely to the BT2 (80-119mm) category. Belgium beam trawls 2003-2006 are assumed to have used the minimum mesh size group 80-89mm (Sec. 4). No assumptions are made for the remaining nations. The species composition of this category is largely stable, dominated by rays in addition to landings of sole and plaice. Following declining plaice landings, a period of more stable landings occurred from 2008. Landings increased in 2011 and 2012, but returned to previous low levels in 2013. Sole beam trawl landings had been stable between 2008 and 2012, but declined in 2013 to lowest landings of the 10 years (Figure 5.5.2.1). Lower level landings of anglerfish and other flatfish (e.g. dab and lemon sole) are also landed, in addition to cod and haddock. Over the last 5 years beam trawling on average has accounted for over 50% of plaice landings, although in 2013 this dropped to 49%. The majority of sole landings (~89%) from vessels ≥10m originate from beam trawling. Although plaice is a target species of this gear category, discarding has been increased from ~30% in 2007 to over 65% in 2013 (with reasonable submission of discard data from 2007), while 3-8% of sole is thrown back (note, 2012 data quality was poor).

Given the reallocation of Irish cod from ICES rectangles 33E2 and 33E3 into the Celtic Sea, focus will be placed on the species composition of gillnetting post 2008. This gear results in low level landings within the Irish Sea, primarily pollack, with lower levels of saithe, ling, and cod (Figure 5.5.2.1). Post 2008, cod landings are low accounting for ≤5% of total landed Irish Sea cod.

Landings by unregulated gears within the Irish Sea (Table 5.5.2.2) are dominated by pelagic, dredge and pot species, specifically herring, scallops, and crab species. This group now also includes vessels operating under exclusion from the regulation (CPart11). Under this category there are high landings of Nephrops and little else (<4t of all other species), as would be expected. Typically unregulated gears have had low cod landings (<1.5t), however in 2013 this increased to >8t, primarily from TR2 CPart11.

Cod numbers by age are not described or presented within this section, however values for this within the Irish Sea are available from the website: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1413.

Table 5.5.2.1 Irish Sea. Landings (t), discards (t) and discard rate by species, gear and special condition according to Coun. Reg. 1342/2008, 2004-2013. For landings, discards and discard rates by Country refer to the web site.

AREA	GEAR	SPECON	SPECIES	2004 L	2004 D	2004 R	2005 L	2005 D	2005 R	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R	2013 L	2013 D	2013 R
3C	BT2	CPART13B	ANF																			0.00		0.00				12.53		0.00			
3C	BT2	NONE	ANF	174.91		0.00	184.34		0.00	123.08		0.00	114.51	1.77	0.02	55.44	0.55	0.01	42.83	0.26	0.01	35.39	0.25	0.01	53.23	4.87	0.09	78.71	15.10	0.19	73.38	2.62	0.04
3C	GN1	CPART13B	ANF																0.04		0.00												
3C	GN1	NONE	ANF	4.92		0.00	3.98		0.00	4.07		0.00	0.23		0.00	1.44		0.00	0.04		0.00	5.95	0.00	0.00	0.09	0.00	0.00	0.23		0.00			
3C	GT1	NONE	ANF																												0.10		0.00
3C	LL1	NONE	ANF	0.00		0.00	0.05		0.00	0.03		0.00																					
3C	TR1	CPART13A	ANF																												0.32	0.00	0.00
3C	TR1	CPART13B	ANF																0.39		0.00	0.67		0.00	0.49		0.00	1.14	0.00	0.00			
3C	TR1	CPART13C	ANF																1.23		0.00	2.28		0.00	1.05		0.00	2.73	0.00	0.00	0.45	0.00	0.00
3C	TR1	NONE	ANF	122.24	0.74	0.01	52.46	0.26	0.00	36.13	0.02	0.00	22.26	0.02	0.00	9.90	8.62	0.87	6.27	1.61	0.26	6.63	0.00	0.00	6.21	0.00	0.00	14.90	0.01	0.00	17.50	0.00	0.00
3C	TR2	CPART13A	ANF																2.42		0.00	0.16	0.10	0.63	29.09	0.90	0.03	38.01	7.21	0.19	156.94	4.95	0.03
3C	TR2	CPART13B	ANF																4.61		0.00	25.55		0.00	46.89	0.16	0.00	112.58	6.08	0.05	0.00		0.00
3C	TR2	CPART13C	ANF																88.90		0.00	39.03		0.00	45.15	0.18	0.00	12.81	0.32	0.03	3.92		0.00
3C	TR2	NONE	ANF	255.17	5.18	0.02	218.62	15.11	0.07	243.50	21.16	0.09	273.64	7.04	0.03	202.46	3.37	0.02	67.99	18.95	0.28	51.59	0.00	0.00	51.99	0.00	0.00	11.07		0.00	4.96		0.00
3C	TR3	NONE	ANF				0.00	0.00								0.10		0.00															
3C	BT2	NONE	COD	124.82		0.00	155.98	0.00	0.00	78.38		0.00	107.39	20.42	0.19	30.66	2.10	0.07	17.27	6.77	0.39	39.35	22.39	0.57	70.83	42.71	0.60	41.65	17.70	0.42	22.36	7.47	0.33
3C	GN1	NONE	COD	116.66		0.00	54.81		0.00	130.94		0.00	329.43		0.00	391.71		0.00	10.42		0.00	9.75	0.00	0.00	11.09	0.00	0.00	3.91		0.00	0.14		0.00
3C	GT1	NONE	COD										0.61		0.00	0.57		0.00	1.25		0.00	1.61		0.00	1.46		0.00						
3C	LL1	NONE	COD	1.08		0.00	1.78		0.00	3.36		0.00	1.12		0.00	11.80		0.00							0.01		0.00	0.06		0.00	0.06		0.00
3C	TR1	CPART13A	COD																												41.61	0.02	0.00
3C	TR1	CPART13B	COD																0.07		0.00	2.09		0.00	1.40		0.00	22.48	0.02	0.00			
3C	TR1	CPART13C	COD																298.25		0.00	199.86		0.00	93.97	0.01	0.00	20.88	0.04	0.00	0.70	0.00	0.00
3C	TR1	NONE	COD	445.35	13.56	0.03	374.03	1.41	0.00	415.85	0.01	0.00	339.24	0.02	0.00	468.53	0.01	0.00	11.97	0.68	0.06	14.04	0.17	0.01	13.20	0.20	0.02	6.13	1.04	0.17	16.34	0.13	0.01
3C	TR2	CPART13A	COD																1.25		0.00	0.30	39.57	131.90	43.55	1.22	0.03	38.71	25.07	0.65	102.80	146.90	1.43
3C	TR2	CPART13B	COD																3.45	20.17	5.85	17.73	6.85	0.39	18.12	0.39	0.02	47.00	354.38	7.54	0.01		0.00
3C	TR2	CPART13C	COD																94.44		0.00	70.21	37.04	0.53	41.31	0.37	0.01	11.72	28.01	2.39	2.46		0.00
3C	TR2	NONE	COD	397.25	89.97	0.23	371.16	39.74	0.11	309.23	6.16	0.02	427.22	15.70	0.04	310.54	308.20	0.99	56.48	26.03	0.46	106.77	11.86	0.11	59.65	1.64	0.03	6.10		0.00	1.07		0.00
3C	TR3	NONE	COD				0.00	0.00																									
3C	BT2	NONE	HAD	25.23		0.00	34.47	5.67	0.16	27.91		0.00	32.40	14.50	0.45	9.34	2.91	0.31	5.65	2.95	0.52	8.29	6.52	0.79	15.68	31.48	2.01	11.89	118.43	9.96	4.83	11.35	2.35
3C	GN1	CPART13B	HAD																16.16		0.00												
3C	GN1	NONE	HAD	9.08		0.00	3.30		0.00	6.96		0.00	11.24		0.00	3.66		0.00	0.09		0.00	0.22	0.00	0.00	1.40	0.00	0.00	0.04		0.00			
3C	LL1	NONE	HAD	0.08		0.00	0.06		0.00	0.11		0.00																					
3C	TR1	CPART13A	HAD																												33.99	0.66	0.02
3C	TR1	CPART13B	HAD																210.14		0.00	240.73		0.00	167.74		0.00	141.49	2.95	0.02			
3C	TR1	CPART13C	HAD																143.74		0.00	241.38		0.00	106.93	1.36	0.01	54.05	0.62	0.01	21.83	0.45	0.02
3C	TR1	NONE	HAD	366.29	825.26	2.25	305.56	68.55	0.22	449.01	1.35	0.00	588.13	3.69	0.01	471.52	264.02	0.56	50.96	13.61	0.27	32.07	6.13	0.19	46.72	7.30	0.16	73.56	3.65	0.05	66.74	3.02	0.05
3C	TR2	CPART13A	HAD																1.71		0.00	0.61	39.55	64.84	8.94	89.91	10.06	31.29	773.34	24.72	119.35	235.92	1.98
3C	TR2	CPART13B	HAD																8.04	5.28	0.66	41.75		0.00	32.28	38.34	1.19	60.08	93.95	1.56			
3C	TR2	CPART13C	HAD																100.00		0.00	72.28		0.00	45.64	40.05	0.88	3.00	4.70	1.57	2.91		0.00
3C	TR2	NONE	HAD	261.86	1976.23	7.55	189.50	661.39	3.49	168.50	1284.21	7.62	441.32	467.84	1.06	387.34	675.37	1.74	51.30	1439.98	28.07	52.68	38.26	0.73	22.05	116.30	5.27	2.63		0.00	1.68		0.00
3C	TR3	NONE	HAD				0.00	0.03		0.04		0.00				0.42		0.00							0.00	0.01							

Table 5.5.2.1 Irish Sea. Continued.

AREA	GEAR	SPECON	SPECIES	2004 L	2004 D	2004 R	2005 L	2005 D	2005 R	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R	2013 L	2013 D	2013 R
3C	BT2	NONE	NEP	0.54		0.00	0.38		0.00	2.45		0.00	0.88		0.00				0.03		0.00	0.05		0.00	0.18		0.00	0.29		0.00	0.28		0.00
3C	GN1	NONE	NEP				9.08		0.00																								
3C	TR1	CPART13A	NEP																												0.61	0.46	0.76
3C	TR1	CPART13B	NEP																			0.18		0.00	0.02		0.00						
3C	TR1	CPART13C	NEP																4.94		0.00	2.68		0.00	0.67		0.00	2.52		0.00	0.03	0.00	0.00
3C	TR1	NONE	NEP	40.46		0.00	20.08		0.00	25.22		0.00	22.56		0.00	23.80	0.00	0.00	8.23	2.45	0.30	2.57	1.41	0.55	17.71	6.47	0.37	33.33	9.47	0.28	83.16	20.73	0.25
3C	TR2	CPART13A	NEP																391.51	147.50	0.38	320.98	73.85	0.23	1489.49	549.60	0.37	4202.60	1182.02	0.28	8503.46	1938.27	0.23
3C	TR2	CPART13B	NEP																661.82		0.00	3596.94	102.08	0.03	4820.10	0.00	0.00	5783.26	3.24	0.00	2.38	0.00	0.00
3C	TR2	CPART13C	NEP																6593.52		0.00	3004.61	132.04	0.04	1976.45	0.01	0.00	486.76	0.35	0.00	238.37	2.20	0.01
3C	TR2	NONE	NEP	7238.13		0.00	6935.82		0.00	7756.40		0.00	9377.30		0.00	10853.85		0.00	2380.37	748.24	0.31	2086.53	522.44	0.25	1649.26	591.99	0.36	62.03	15.83	0.26	0.17		0.00
3C	TR3	NONE	NEP				0.33		0.00	0.14		0.00																					
3C	BT2	CPART13B	PLE																			0.11		0.00				5.54		0.00			
3C	BT2	NONE	PLE	549.20		0.00	695.73	0.00	0.00	412.72	0.00	0.00	262.83	109.44	0.42	181.57	99.28	0.55	211.93	110.87	0.52	174.61	113.29	0.65	384.94	257.92	0.67	264.31	234.96	0.89	157.50	346.51	2.20
3C	GN1	NONE	PLE	0.03		0.00	1.67		0.00	0.05		0.00	0.01		0.00	0.08		0.00	0.09		0.00	0.10	0.00	0.00	0.05	0.02	0.38	0.01		0.00			
3C	GT1	NONE	PLE										0.01		0.00	0.04		0.00	0.06		0.00	0.02		0.00	0.15		0.00						
3C	TR1	CPART13A	PLE																												1.04	0.02	0.01
3C	TR1	CPART13B	PLE																6.72		0.00	9.58		0.00	5.34		0.00	6.73	3.69	0.55			
3C	TR1	CPART13C	PLE																1.44		0.00	1.28	0.13	0.10	0.95	0.00	0.00	4.23	0.72	0.17	3.58	0.12	0.03
3C	TR1	NONE	PLE	125.14	27.00	0.22	75.71	4.36	0.06	112.21	11.10	0.10	57.42	0.96	0.02	42.50	17.16	0.40	12.87	4.59	0.36	12.29	0.93	0.08	10.89	1.79	0.16	37.03	9.66	0.26	58.49	1.70	0.03
3C	TR2	CPART13A	PLE																			0.77	9.55	12.40	8.64	17.20	1.99	27.90	228.77	8.20	51.25	281.01	5.48
3C	TR2	CPART13B	PLE																7.22		0.00	38.41	434.79	11.32	43.89	38.61	0.88	66.44	216.37	3.26	10.41	10.14	0.97
3C	TR2	CPART13C	PLE																112.40		0.00	66.86	1001.89	14.98	50.88	54.81	1.08	30.97	47.52	1.53	23.77	85.21	3.58
3C	TR2	NONE	PLE	369.17	705.71	1.91	408.84	1084.40	2.65	332.63	1210.37	3.64	378.22	189.26	0.50	260.69	620.16	2.38	47.22	167.50	3.55	39.70	243.57	6.14	76.80	61.27	0.80	13.69		0.00	13.34		0.00
3C	TR3	NONE	PLE				0.00	0.04		0.15		0.00				0.08		0.00							0.00	0.01							
3C	BT2	NONE	RAJ	125.38		0.00	371.52		0.00	259.39		0.00	349.26		0.00	288.59	236.24	0.82	219.38	179.68	0.82	370.01	314.62	0.85	363.19	446.82	1.23	213.02	72.85	0.34	160.39	69.39	0.43
3C	GN1	NONE	RAJ	2.86		0.00	28.21		0.00	1.34		0.00	0.14		0.00	4.19		0.00	1.56		0.00	14.88	0.00	0.00	3.04	0.02	0.01	9.13		0.00	0.09		0.00
3C	GT1	NONE	RAJ													2.27		0.00	1.32		0.00												
3C	LL1	NONE	RAJ	0.12		0.00																											
3C	TR1	NONE	RAJ	160.28	0.20	0.00	120.36	0.05	0.00	97.67	0.00	0.00	72.69	0.02	0.00	51.09	752.35	14.73	47.01	0.58	0.01	102.64	1.41	0.01	50.28	1.55	0.03	192.76	14.54	0.08	215.82	36.51	0.17
3C	TR2	CPART13A	RAJ																0.29		0.00	2.01	6.69	3.33	15.62	3.20	0.20	48.87	46.27	0.95	29.87	40.37	1.35
3C	TR2	NONE	RAJ	339.54	5.66	0.02	347.97	16.03	0.05	296.72	0.66	0.00	306.86	7.22	0.02	156.47	1.58	0.01	106.31	24.48	0.23	138.32	81.44	0.59	165.76	85.68	0.52	7.48		0.00			
3C	TR3	NONE	RAJ				0.00	0.00								0.09		0.00										0.00	0.18				
3C	BT2	CPART13B	SOL																			1.31		0.00				3.44		0.00			
3C	BT2	NONE	SOL	657.38		0.00	801.90	0.00	0.00	515.99	0.00	0.00	401.06	13.18	0.03	275.95	24.35	0.09	289.64	16.15	0.06	247.09	10.93	0.04	285.46	11.13	0.04	256.38	0.19	0.00	123.99	10.06	0.08
3C	GN1	CPART13B	SOL																0.00		0.00												
3C	GN1	NONE	SOL	0.06		0.00	0.00		0.00	0.00		0.00	0.26		0.00	0.06		0.00	0.08		0.00	0.06	0.00	0.00	0.00		0.00				1.00		0.00
3C	GT1	NONE	SOL										0.00		0.00				0.08		0.00	0.00			0.00		0.00	0.08		0.00			
3C	TR1	CPART13A	SOL																												0.01	0.00	0.00
3C	TR1	CPART13B	SOL																0.07		0.00	0.08		0.00	0.09		0.00	0.03	0.00	0.00			
3C	TR1	CPART13C	SOL																0.10		0.00	0.41		0.00	0.02	0.00	0.07	0.23	0.00	0.00	0.01	0.00	0.00
3C	TR1	NONE	SOL	6.68	0.00	0.00	6.39	0.03	0.01	2.58	0.01	0.01	3.01	0.00	0.00	1.26	0.00	0.00	1.72	0.00	0.00	1.18	0.00	0.00	1.10	0.00	0.00	3.39	0.00	0.00	6.13	0.00	0.00
3C	TR2	CPART13A	SOL																0.02		0.00	0.00	0.16		3.78	0.00	0.00	4.18	0.70	0.17	11.26	1.67	0.15
3C	TR2	CPART13B	SOL																0.72		0.00	4.13	0.01	0.00	7.23	0.63	0.09	8.24	0.31	0.04	0.18		0.00
3C	TR2	CPART13C	SOL																12.57		0.00	3.83	0.01	0.00	5.30	0.74	0.14	1.82	0.02	0.01	1.07		0.00
3C	TR2	NONE	SOL	30.18	0.33	0.01	36.06	4.48	0.12	42.24	27.23	0.64	76.61	0.00	0.00	37.97	2.08	0.05	15.70	0.00	0.00	14.77	20.45	1.38	22.35	0.00	0.00	9.01		0.00	3.03		0.00

Table 5.5.2.1 Irish Sea. Continued.

AREA	GEAR	SPECON	SPECIES	2004 L	2004 D	2004 R	2005 L	2005 D	2005 R	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R	2013 L	2013 D	2013 R
3C	BT2	CPART13B	WHG																									0.02		0.00			
3C	BT2	NONE	WHG	13.56		0.00	11.63	13.94	1.20	4.33	13.62	3.14	4.60	3.74	0.81	1.54	14.46	9.37	2.17	4.70	2.16	4.19	7.30	1.74	3.40	37.38	11.00	3.46	30.43	8.80	2.13	17.94	8.42
3C	GN1	NONE	WHG	5.91		0.00	1.27		0.00	0.37		0.00	1.40		0.00	0.56		0.00				0.01		0.00	0.41	0.05	0.12	0.05		0.00			
3C	LL1	NONE	WHG				0.04		0.00																								
3C	TR1	CPART13A	WHG																											1.08	0.07	0.07
3C	TR1	CPART13B	WHG																0.52		0.00	3.96		0.00	1.02		0.00	1.46	0.58	0.40			
3C	TR1	CPART13C	WHG																5.62		0.00	0.82		0.00	0.09	7.23	82.13	1.43	0.01	0.00	1.96		0.00
3C	TR1	NONE	WHG	72.33	1021.10	14.12	39.75	26.84	0.68	18.77	2.38	0.13	90.21	5.00	0.06	47.03	14.13	0.30	28.87	20.53	0.71	32.56	28.81	0.88	38.23	9.75	0.25	19.89	21.06	1.06	6.70	1.95	0.29
3C	TR2	CPART13A	WHG																			0.00	80.37		0.25	53.82	215.28	2.60	802.96	308.71	20.72	1054.09	50.88
3C	TR2	CPART13B	WHG																0.41	0.63	1.52	5.14		0.00	2.70	120.74	44.65	1.33	374.77	281.78			
3C	TR2	CPART13C	WHG																5.48		0.00	6.16		0.00	1.54	86.14	56.05	0.18	10.23	58.13	0.39		0.00
3C	TR2	NONE	WHG	81.98	2050.91	25.02	103.52	355.71	3.44	61.38	1977.86	32.22	98.78	822.37	8.33	28.26	1498.13	53.02	7.15	1213.46	169.69	30.13	197.81	6.56	3.10	151.74	48.89	1.02		0.00	0.27		0.00
3C	TR3	NONE	WHG				0.00	0.03		0.06		0.00				0.18		0.00							0.00	0.09							

Table 5.5.2.2 Irish Sea. Discard rate and data quality index by species, gear and special condition according to Coun. Reg. 1342/2008, 2004-2013. A = acceptable, B = uncertain, C = poor.

reg_area	reg_gear	specon	species	2004 R	2004 DQI	2005 R	2005 DQI	2006 R	2006 DQI	2007 R	2007 DQI	2008 R	2008 DQI	2009 R	2009 DQI	2010 R	2010 DQI	2011 R	2011 DQI	2012 R	2012 DQI	2013 R	2013 DQI
3C	TR1	CPART13A	ANF																				A
3C	TR1	CPART13A	COD																			0	A
3C	TR1	CPART13A	HAD																			0.019	A
3C	TR1	CPART13A	NEP																			0.431	A
3C	TR1	CPART13A	PLE																			0.014	B
3C	TR1	CPART13A	SOL																				A
3C	TR1	CPART13A	WHG																			0.062	A
3C	TR1	CPART13B	ANF																		C		
3C	TR1	CPART13B	COD																	0.001	A		
3C	TR1	CPART13B	HAD																	0.02	C		
3C	TR1	CPART13B	NEP																				
3C	TR1	CPART13B	PLE																	0.354	B		
3C	TR1	CPART13B	SOL																		C		
3C	TR1	CPART13B	WHG																	0.285	A		
3C	TR1	CPART13C	ANF																		C		A
3C	TR1	CPART13C	COD															0	C	0.002	A		B
3C	TR1	CPART13C	HAD															0.013	C	0.011	C	0.02	A
3C	TR1	CPART13C	NEP																				C
3C	TR1	CPART13C	PLE													0.093	C		C	0.145	C	0.032	C
3C	TR1	CPART13C	SOL															0.063	C		B		C
3C	TR1	CPART13C	WHG															0.988	C	0.003	C		

Table 5.5.2.2 Irish Sea. Continued.

reg_area	reg_gear	specon	species	2004 R	2004 DQI	2005 R	2005 DQI	2006 R	2006 DQI	2007 R	2007 DQI	2008 R	2008 DQI	2009 R	2009 DQI	2010 R	2010 DQI	2011 R	2011 DQI	2012 R	2012 DQI	2013 R	2013 DQI
3C	TR1	NONE	ANF	0.006	C	0.005	C	0.001	C	0.001	C	0.465	C	0.204	C		B		C	0.001	B		B
3C	TR1	NONE	COD	0.03	C	0.004	C	0	C	0	C	0	C	0.054	A	0.012	B	0.015	C	0.145	B	0.008	B
3C	TR1	NONE	HAD	0.693	C	0.183	C	0.003	C	0.006	C	0.359	C	0.211	C	0.16	B	0.135	B	0.047	B	0.043	B
3C	TR1	NONE	NEP										C	0.229	A	0.354	A	0.268	A	0.221	A	0.2	A
3C	TR1	NONE	PLE	0.177	C	0.054	C	0.09	C	0.016	C	0.288	C	0.263	B	0.07	B	0.141	A	0.207	A	0.028	B
3C	TR1	NONE	RAJ	0.001	A	0	B	0	C	0	B	0.936	C	0.012	C	0.014	B	0.03	A	0.07	A	0.145	B
3C	TR1	NONE	SOL	0	C	0.005	C	0.005	C		C	0.001	C		B		B		A		A		B
3C	TR1	NONE	WHG	0.934	C	0.403	C	0.112	C	0.052	B	0.231	A	0.416	B	0.469	C	0.203	A	0.514	C	0.226	B
3C	TR2	CPART11	ANF													0.426	C	0.903	C	0.808	C	0.16	A
3C	TR2	CPART11	COD													0.625	C	0.961	C	0.98	C	0.055	A
3C	TR2	CPART11	HAD													0.995	C	0.999	C	0.994	C	0.972	A
3C	TR2	CPART11	NEP													0.238	A	0.273	A	0.22	A	0.203	A
3C	TR2	CPART11	PLE													0.993	C	0.949	C	0.99	C	0.96	A
3C	TR2	CPART11	RAJ															1	A	0.975	A	0.729	A
3C	TR2	CPART11	SOL																	0.692	C	0.702	A
3C	TR2	CPART11	WHG													1	A	0.999	C	1	C	1	A
3C	TR2	CPART13A	ANF													0.385	A	0.03	B	0.159	A	0.031	A
3C	TR2	CPART13A	COD													0.992	A	0.027	A	0.393	A	0.588	A
3C	TR2	CPART13A	HAD													0.985	A	0.91	B	0.961	B	0.664	A
3C	TR2	CPART13A	NEP											0.274	A	0.187	A	0.27	A	0.22	A	0.186	A
3C	TR2	CPART13A	PLE													0.925	A	0.666	B	0.891	A	0.846	A
3C	TR2	CPART13A	RAJ													0.769	A	0.17	B	0.486	A	0.575	A
3C	TR2	CPART13A	SOL													1	A		B	0.144	A	0.129	A
3C	TR2	CPART13A	WHG													1	A	0.995	C	0.997	B	0.981	A
3C	TR2	CPART13B	ANF															0.003	A	0.051	A		
3C	TR2	CPART13B	COD											0.854	C	0.279	C	0.021	A	0.883	A		
3C	TR2	CPART13B	HAD											0.397	C			0.543	A	0.61	A		
3C	TR2	CPART13B	NEP													0.028	C	0	C	0.001	C		A
3C	TR2	CPART13B	PLE													0.919	B	0.468	A	0.765	A	0.494	B
3C	TR2	CPART13B	SOL													0.002	C	0.08	A	0.037	A		
3C	TR2	CPART13B	WHG											0.603	C			0.978	A	0.996	A		
3C	TR2	CPART13C	ANF															0.004	A	0.025	A		
3C	TR2	CPART13C	COD													0.345	C	0.009	A	0.705	A		
3C	TR2	CPART13C	HAD															0.467	A	0.61	A		
3C	TR2	CPART13C	NEP													0.042	C	0	C	0.001	C	0.009	C
3C	TR2	CPART13C	PLE													0.937	C	0.519	A	0.605	B	0.782	B
3C	TR2	CPART13C	SOL													0.002	C	0.123	B	0.009	B		
3C	TR2	CPART13C	WHG															0.982	A	0.983	B		
3C	TR2	NONE	ANF	0.02	B	0.065	B	0.08	B	0.025	B	0.016	B	0.218	A		A		A				
3C	TR2	NONE	COD	0.185	B	0.097	B	0.02	B	0.035	B	0.498	B	0.315	A	0.1	A	0.027	A				
3C	TR2	NONE	HAD	0.883	B	0.777	B	0.884	B	0.515	B	0.636	B	0.966	A	0.421	A	0.841	A				
3C	TR2	NONE	NEP											0.239	A	0.2	A	0.264	A	0.203	A		

Table 5.5.2.2 Irish Sea. Continued.

reg_area	reg_gear	specon	species	2004 R	2004 DQI	2005 R	2005 DQI	2006 R	2006 DQI	2007 R	2007 DQI	2008 R	2008 DQI	2009 R	2009 DQI	2010 R	2010 DQI	2011 R	2011 DQI	2012 R	2012 DQI	2013 R	2013 DQI
3C	TR2	NONE	PLE	0.657	B	0.726	C	0.784	C	0.334	B	0.704	B	0.78	B	0.86	B	0.444	B				
3C	TR2	NONE	RAJ	0.016	A	0.044	A	0.002	A	0.023	A	0.01	A	0.187	B	0.371	A	0.341	A				
3C	TR2	NONE	SOL	0.011	B	0.11	C	0.392	C		C	0.052	C		B	0.581	B		B				
3C	TR2	NONE	WHG	0.962	B	0.775	A	0.97	B	0.893	A	0.981	A	0.994	A	0.868	A	0.98	A				
3C	TR3	NONE	ANF			1	A																
3C	TR3	NONE	COD			1	A																
3C	TR3	NONE	HAD			1	A											1	A				
3C	TR3	NONE	NEP																				
3C	TR3	NONE	PLE			1	A											1	A				
3C	TR3	NONE	RAJ			1	A													1	A		
3C	TR3	NONE	WHG			1	A											1	A				
3C	BT2	NONE	ANF							0.015	B	0.01	A	0.006	A	0.007	A	0.084	A	0.161	A	0.035	A
3C	BT2	NONE	COD				C			0.16	B	0.064	B	0.282	A	0.363	A	0.376	A	0.298	A	0.25	A
3C	BT2	NONE	HAD			0.141	C			0.309	B	0.238	A	0.343	A	0.44	A	0.668	A	0.909	A	0.702	A
3C	BT2	NONE	NEP																				
3C	BT2	NONE	PLE				C		C	0.294	B	0.354	A	0.343	A	0.394	A	0.401	A	0.471	A	0.688	A
3C	BT2	NONE	RAJ									0.45	A	0.45	B	0.46	A	0.552	A	0.255	B	0.302	B
3C	BT2	NONE	SOL				C		C	0.032	A	0.081	A	0.053	A	0.042	A	0.038	A	0.001	C	0.075	A
3C	BT2	NONE	WHG			0.545	C	0.759	C	0.449	B	0.904	A	0.684	A	0.635	A	0.917	A	0.898	A	0.894	A
3C	GN1	NONE	ANF														C		C				
3C	GN1	NONE	COD														A		C				
3C	GN1	NONE	HAD														A		A				
3C	GN1	NONE	NEP																				
3C	GN1	NONE	PLE														C	0.278	C				
3C	GN1	NONE	RAJ														C	0.007	C				
3C	GN1	NONE	SOL														C						
3C	GN1	NONE	WHG															0.109	C				

Table 5.5.2.3 Irish Sea. Landings (t), discards (t) and discard rate of unregulated gear (category none) associated with Coun. Reg. 1342/2008 by species and gear, 2004-2013, including special condition CPart11. For landings, discards and discard rates by Country refer to the website.

AREA	GEAR	SPECON	SPECIES	2004 L	2004 D	2004 R	2005 L	2005 D	2005 R	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R	2013 L	2013 D	2013 R
3C	BEAM	NONE	ANF	12.10		0.00										0.00		0.00															
3C	BEAM	NONE	COD	7.96		0.00										0.01		0.00															
3C	BEAM	NONE	HAD	5.06		0.00																											
3C	BEAM	NONE	NEP													0.20		0.00	1.57		0.00												
3C	BEAM	NONE	PLE	30.06		0.00																											
3C	BEAM	NONE	RAJ	146.90		0.00																											
3C	BEAM	NONE	SOL	7.95		0.00																											
3C	BEAM	NONE	WHG	0.08		0.00													0.02		0.00												
3C	DEM_SEINE	NONE	HAD	2.20		0.00																											
3C	DEM_SEINE	NONE	PLE	0.10		0.00																											
3C	DREDGE	NONE	ANF	3.00		0.00	2.26		0.00	1.34		0.00	2.66		0.00	0.16		0.00				0.14		0.00	0.00	125.75	62875.00	0.08	8.62	111.95	0.57	69.13	121.07
3C	DREDGE	NONE	COD	1.34		0.00	0.13		0.00	0.05		0.00							0.02		0.00				0.00	3.63		0.00		0.00			
3C	DREDGE	NONE	HAD	0.19		0.00				0.09		0.00													0.00	11.00							
3C	DREDGE	NONE	NEP	0.55		0.00				0.01		0.00							0.41		0.00												
3C	DREDGE	NONE	PLE	4.13		0.00	3.20		0.00	0.75		0.00	0.21		0.00	0.01		0.00	0.00		0.00	0.14	0.58	4.08	0.12	20.69	168.21	0.00	3.45		0.07	28.68	434.55
3C	DREDGE	NONE	RAJ	9.43		0.00	6.95		0.00	1.20		0.00										0.00	6.67		0.00	252.13		0.00	87.09		0.00	151.25	
3C	DREDGE	NONE	SOL	1.92		0.00	4.15		0.00	2.09		0.00	3.69		0.00	0.49		0.00	0.28		0.00	0.08		0.00	0.01	5.16	516.00	0.06		0.00	0.00	0.48	240.00
3C	DREDGE	NONE	WHG	0.00		0.00																			0.00	0.55		0.00	0.32				
3C	NONE	NONE	ANF										8.70		0.00																0.37		0.00
3C	NONE	NONE	COD																												1.03		0.00
3C	NONE	NONE	HAD										0.09		0.00																0.04		0.00
3C	NONE	NONE	NEP																												54.85		0.00
3C	NONE	NONE	PLE													0.03		0.00													0.03		0.00
3C	NONE	NONE	RAJ													0.40		0.00													0.12		0.00
3C	NONE	NONE	SOL													0.01		0.00													0.15		0.00
3C	OTTER	NONE	ANF	6.38		0.00	0.02		0.00	0.11		0.00							0.05		0.00	0.01		0.00									
3C	OTTER	NONE	COD	9.13		0.00				0.18		0.00													0.01		0.00						
3C	OTTER	NONE	HAD	14.91		0.00				0.01		0.00													0.00	0.01							
3C	OTTER	NONE	NEP	210.96		0.00	0.02		0.00	4.79		0.00	0.13		0.00				0.02	0.01	0.50	2.37		0.00	0.02		0.00						
3C	OTTER	NONE	PLE	4.79		0.00	0.60		0.00	0.42		0.00	0.48		0.00				0.09		0.00				0.18	0.02	0.11						
3C	OTTER	NONE	RAJ	17.75		0.00																			0.00	0.04		0.00	0.40		0.00	0.05	
3C	OTTER	NONE	SOL	0.24		0.00	0.04		0.00	0.00		0.00	0.02		0.00							0.01		0.00	0.00		0.00						
3C	OTTER	NONE	WHG	11.22		0.00																			0.00	0.13							
3C	PEL_SEINE	NONE	ANF	0.48		0.00																											
3C	PEL_SEINE	NONE	COD	1.14		0.00																											
3C	PEL_SEINE	NONE	HAD	1.78		0.00																											
3C	PEL_SEINE	NONE	NEP	26.22		0.00										2.71		0.00															
3C	PEL_SEINE	NONE	PLE	0.26		0.00																											
3C	PEL_SEINE	NONE	RAJ																														
3C	PEL_SEINE	NONE	WHG	0.25		0.00																											

Table 5.5.2.3 Irish Sea. Continued.

AREA	GEAR	SPECON	SPECIES	2004 L	2004 D	2004 R	2005 L	2005 D	2005 R	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R	2013 L	2013 D	2013 R
3C	PEL_TRAWL	NONE	ANF	8.51		0.00				0.04		0.00	0.11		0.00				0.17		0.00	0.13		0.00	0.10		0.00	0.58		0.00	0.08		0.00
3C	PEL_TRAWL	NONE	COD	1.82		0.00							0.09		0.00				0.91		0.00	1.46		0.00	0.06		0.00	0.01		0.00	0.16		0.00
3C	PEL_TRAWL	NONE	HAD	2.34		0.00							0.19		0.00				1.98		0.00	0.71		0.00				0.24		0.00	0.03		0.00
3C	PEL_TRAWL	NONE	NEP	7.11		0.00				0.95		0.00	3.33		0.00				13.82		0.00	0.15		0.00	7.06		0.00	0.67		0.00	0.42		0.00
3C	PEL_TRAWL	NONE	PLE	5.86		0.00							0.09		0.00				0.35		0.00							4.49		0.00	0.12		0.00
3C	PEL_TRAWL	NONE	RAJ	20.77		0.00							0.15		0.00				0.12		0.00	0.50		0.00	0.19		0.00	2.85		0.00	1.42		0.00
3C	PEL_TRAWL	NONE	SOL	0.09		0.00							0.03		0.00				0.03		0.00												
3C	PEL_TRAWL	NONE	WHG	3.76		0.00													0.04		0.00	0.08		0.00							0.09		0.00
3C	POTS	NONE	ANF	2.08	0.21	0.10							0.01		0.00	0.03		0.00	0.03		0.00	0.13		0.00									
3C	POTS	NONE	COD	3.53	0.49	0.14	0.26		0.00	0.28		0.00	0.13		0.00	0.03		0.00	0.12		0.00	0.03		0.00				0.01		0.00	0.03		0.00
3C	POTS	NONE	HAD	6.26	0.97	0.15							0.01		0.00	0.00		0.00	0.07		0.00				0.02		0.00						
3C	POTS	NONE	NEP	42.43		0.00	1.34		0.00	0.47		0.00	0.40		0.00	0.38		0.00	0.12		0.00				1.45		0.00	0.92		0.00	2.09		0.00
3C	POTS	NONE	PLE	1.44	3.93	2.73	0.04		0.00							0.25		0.00	0.08		0.00				0.00		0.00	0.00		0.00			
3C	POTS	NONE	RAJ	1.83	0.06	0.03	0.00	0.00		0.16		0.00				4.97		0.00	1.66		0.00	2.36		0.00									
3C	POTS	NONE	SOL										0.00		0.00	0.00		0.00	0.10		0.00	0.02		0.00									
3C	POTS	NONE	WHG	1.24	23.76	19.16				0.05		0.00																					
3C	TR1	CPART11	ANF																									0.00		0.00			
3C	TR1	CPART11	HAD																									0.04		0.00			
3C	TR1	CPART11	PLE																									0.01		0.00			
3C	TR2	CPART11	ANF																0.01		0.00	0.05	0.04	0.74	0.05	0.50	9.26	0.23	0.97	4.20	4.58	0.87	0.19
3C	TR2	CPART11	COD																			0.04	0.07	1.67	0.03	0.79	24.69	0.06	2.88	49.66	7.08	0.41	0.06
3C	TR2	CPART11	HAD																			0.04	7.31	197.57	0.04	56.04	1334.29	0.23	36.95	162.78	0.44	15.09	34.30
3C	TR2	CPART11	NEP																3.01		0.00	492.87	153.75	0.31	944.05	354.22	0.38	721.72	203.67	0.28	511.10	130.09	0.25
3C	TR2	CPART11	PLE																0.16		0.00	0.08	10.62	132.75	0.51	9.42	18.43	0.31	30.96	99.87	0.80	19.40	24.19
3C	TR2	CPART11	RAJ																			0.09		0.00	0.00	2.19		0.20	7.93	39.65	3.67	9.89	2.69
3C	TR2	CPART11	SOL																0.05		0.00	0.01		0.00	0.00		0.00	0.07	0.15	2.25	0.05	0.12	2.35
3C	TR2	CPART11	WHG																			0.00	10.71		0.02	33.18	1951.76	0.01	57.66	9610.00	0.00	18.20	

Table 5.5.2.4 Irish Sea. Landings (t), discards (t) and discard rate of regulated and unregulated gear (category none) associated with Coun. Reg. 1342/2008 for pelagic species and by gear and special condition, 2004-2013. For landings, discards and discard rates by Country refer to the website.

AREA	GEAR	SPECON	SPECIES	2004 L	2004 D	2004 R	2005 L	2005 D	2005 R	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R	2013 L	2013 D	2013 R
3C	BT2	NONE	JAX																			0.00	0.01										
3C	BT2	NONE	MAC													0.00	0.24																
3C	BT2	NONE	WHB																0.00	0.01													
3C	DREDGE	NONE	HER	0.03		0.00	6.50		0.00				27.50		0.00																		
3C	DREDGE	NONE	MAC	0.06		0.00																						0.00	0.05				
3C	DREDGE	NONE	SPR																									0.00	0.01				
3C	DREDGE	NONE	WHB																						0.00	2.43							
3C	GN1	NONE	HER	171.74		0.00	6.48		0.00																								
3C	GN1	NONE	MAC							1.40		0.00							0.04		0.00										0.07		0.00
3C	GN1	NONE	SPR																												36.00		0.00
3C	LL1	NONE	MAC				0.00		0.00	0.30		0.00	0.27		0.00	0.26		0.00				1.15		0.00	0.74		0.00	0.09		0.00			
3C	OTTER	NONE	HER	128.89		0.00	172.79		0.00	143.33		0.00	0.01		0.00				5.20		0.00	4.00		0.00	13.94	0.02	0.00	65.79	0.00	0.00	35.20		0.00
3C	OTTER	NONE	MAC	0.14		0.00																											
3C	OTTER	NONE	SPR	6.53		0.00	39.80		0.00	6.00		0.00										174.09		0.00				496.62	0.00	0.00	60.39	0.00	0.00
3C	PEL_SEINE	NONE	HER	700.00		0.00	1834.05		0.00	798.17		0.00																					
3C	PEL_SEINE	NONE	JAX							21.46		0.00																					
3C	PEL_SEINE	NONE	MAC																						0.26		0.00						
3C	PEL_SEINE	NONE	SPR	21.40		0.00	29.14		0.00																								
3C	PEL_TRAWL	NONE	HER	7027.20		0.00	7276.25		0.00	5783.31		0.00	5534.24		0.00	5203.83		0.00	4722.63		0.00	5279.02		0.00	5543.55	0.00	0.00	6872.01	0.00	0.00	6257.80	0.00	0.00
3C	PEL_TRAWL	NONE	JAX	12.00		0.00	393.80		0.00				50.54		0.00				4.80		0.00	151.00		0.00									
3C	PEL_TRAWL	NONE	MAC	2.72		0.00	173.50		0.00				0.20		0.00				19.47		0.00										16.00		0.00
3C	PEL_TRAWL	NONE	SPR	370.00		0.00	827.06		0.00	659.23		0.00				55.06		0.00				149.67		0.00	1082.34		0.00	4406.52		0.00	1856.93		0.00
3C	POTS	NONE	HER	0.00	13.33																												
3C	POTS	NONE	JAX																0.38		0.00												
3C	POTS	NONE	MAC				0.03		0.00				0.61		0.00	0.12		0.00				0.39		0.00				0.14		0.00	0.05		0.00
3C	POTS	NONE	SPR	17.60	0.43	0.02																											
3C	TR1	NONE	HER	0.25	0.90	3.61	0.00	0.03		0.00	0.05		0.12	0.02	0.20	0.08	0.33	4.18	0.00	0.49		0.03	0.13	4.33	0.00	1.21		0.00	0.01		0.00	0.05	
3C	TR1	NONE	JAX				0.00	0.00		0.00	0.01											0.00	0.01					0.00	0.01		1.00		0.00
3C	TR1	NONE	MAC	0.73	0.04	0.05	0.10	0.01	0.11	0.20	0.06	0.29	1.31	0.02	0.01	0.00	0.01		0.49	0.03	0.06				0.13	0.10	0.77	0.00	0.02		0.00	0.01	
3C	TR1	NONE	SPR	0.00	0.12		0.00	0.01		0.00	0.10		0.00	0.01		0.00	0.13		0.00	0.19		11.05		0.00	0.00	0.05		29.10	0.00	0.00			
3C	TR1	NONE	WHB	0.00	0.13		0.00	0.00											0.00	0.16		0.00	0.13								0.00	0.37	
3C	TR2	CPART11	HER																			0.00	2.25		0.00	3.96		0.00	2.27		0.00	3.40	
3C	TR2	CPART11	JAX																									0.00	0.04				
3C	TR2	CPART11	MAC																			0.00	0.63					0.00	0.20		0.00	0.04	
3C	TR2	CPART11	SPR																						0.00	0.05		0.00	0.03		0.00	0.03	
3C	TR2	CPART11	WHB																			0.00	0.04										
3C	TR2	CPART13A	HER																			0.00	0.59		0.00	8.02		0.29	32.29	111.74	14.31	872.29	60.96
3C	TR2	CPART13A	JAX																									0.04	0.30	8.11			
3C	TR2	CPART13A	MAC																									0.00	1.48		0.12	2.17	18.55
3C	TR2	CPART13A	SPR																						0.00	0.08		19.50	0.21	0.01	0.00	0.16	
3C	TR2	CPART13A	WHB																			0.00	0.54								0.00	0.02	

Table 5.5.2.4 Irish Sea. Continued.

AREA	GEAR	SPECON	SPECIES	2004 L	2004 D	2004 R	2005 L	2005 D	2005 R	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R	2013 L	2013 D	2013 R
3C	TR2	CPART13B	HER																			0.41		0.00	0.06	13.69	244.45	0.05	3.41	68.28			
3C	TR2	CPART13B	MAC																0.03		0.00	0.25		0.00	0.05	0.05	1.11	0.19	2.19	11.36			
3C	TR2	CPART13C	HER																0.95		0.00	0.08		0.00									
3C	TR2	CPART13C	MAC																0.43		0.00	0.09		0.00	0.00	0.00	0.00	0.00	0.02	5.00			
3C	TR2	NONE	HER	186.63	34.40	0.18	11.26	11.41	1.01	51.96	19.21	0.37	0.87	12.20	14.02	0.96	550.96	576.31	0.00	24.12		3.32	2.16	0.65	0.24	14.05	58.54						
3C	TR2	NONE	JAX				0.00	0.62		0.00	2.05											0.00	0.18										
3C	TR2	NONE	MAC	1.77	7.99	4.51	0.83	4.19	5.06	0.39	44.44	113.65	1.47	35.19	23.90	1.73	36.83	21.27	0.00	0.93		0.82	0.00	0.00	0.05	0.76	15.20						
3C	TR2	NONE	SPR	55.27	10.13	0.18	55.95	1.71	0.03	11.50	39.54	3.44	0.00	5.62		0.00	122.88		0.00	31.48		1.25	0.57	0.46	0.00	0.37							
3C	TR2	NONE	WHB	0.00	0.55		0.00	0.56											0.00	4.38		0.00	1.96		0.00	0.11							
3C	TR3	NONE	HER				116.23	0.00	0.00	35.72		0.00													7.82	0.01	0.00	25.95	0.00	0.00	11.34		0.00
3C	TR3	NONE	SPR	4.95		0.00	0.35		0.00																			19.90	0.00	0.00			

Table 5.5.2.5 Irish Sea. Discard rate and data quality index for pelagic species by regulated and unregulated gear and special condition according to Coun. Reg. 1342/2008, 2004-2013. A = acceptable, B = uncertain, C = poor.

reg_area	reg_gear	specon	species	2004 R	2004 DQI	2005 R	2005 DQI	2006 R	2006 DQI	2007 R	2007 DQI	2008 R	2008 DQI	2009 R	2009 DQI	2010 R	2010 DQI	2011 R	2011 DQI	2012 R	2012 DQI	2013 R	2013 DQI
3C	BT2	NONE	JAX													1.00	A						
3C	BT2	NONE	MAC									1.00	A										
3C	BT2	NONE	WHB											1.00	A								
3C	DREDGE	NONE	MAC																	1.00	A		
3C	DREDGE	NONE	SPR																	1.00	A		
3C	DREDGE	NONE	WHB															1.00	A				
3C	OTTER	NONE	HER															0.00	A		A		
3C	OTTER	NONE	SPR																		A		A
3C	PEL_TRAWL	NONE	HER																A		A		B
3C	POTS	NONE	HER	1.00	A																		
3C	POTS	NONE	SPR	0.02	C																		
3C	TR1	NONE	HER	0.78	A	1.00	A	1.00	A	0.17	A	0.81	C	1.00	A	0.81	A	1.00	A	1.00	A	1.00	A
3C	TR1	NONE	JAX			1.00	A	1.00	A							1.00	A			1.00	A		
3C	TR1	NONE	MAC	0.05	A	0.10	C	0.23	C	0.01	C	1.00	A	0.06	A			0.44	C	1.00	A	1.00	A
3C	TR1	NONE	SPR	1.00	A	1.00	A	1.00	A	1.00	A	1.00	A	1.00	A			1.00	A		A		
3C	TR1	NONE	WHB	1.00	A	1.00	A							1.00	A	1.00	A					1.00	A

Table 5.5.2.5 Irish Sea. Continued.

reg_area	reg_gear	specon	species	2004 R	2004 DQI	2005 R	2005 DQI	2006 R	2006 DQI	2007 R	2007 DQI	2008 R	2008 DQI	2009 R	2009 DQI	2010 R	2010 DQI	2011 R	2011 DQI	2012 R	2012 DQI	2013 R	2013 DQI
3C	TR2	CPART11	HER													1.00	A	1.00	A	1.00	A	1.00	A
3C	TR2	CPART11	JAX																	1.00	A		
3C	TR2	CPART11	MAC													1.00	A			1.00	A	1.00	A
3C	TR2	CPART11	SPR															1.00	A	1.00	A	1.00	A
3C	TR2	CPART11	WHB													1.00	A						
3C	TR2	CPART13A	HER													1.00	A	1.00	A	0.99	A	0.98	C
3C	TR2	CPART13A	JAX																	0.89	C		
3C	TR2	CPART13A	MAC																	1.00	A	0.95	A
3C	TR2	CPART13A	SPR															1.00	A	0.01	C	1.00	A
3C	TR2	CPART13A	WHB													1.00	A					1.00	A
3C	TR2	CPART13B	HER															1.00	A	0.99	A		
3C	TR2	CPART13B	MAC															0.53	A	0.92	A		
3C	TR2	CPART13C	MAC																C	0.83	C		
3C	TR2	NONE	HER	0.16	A	0.50	A	0.27	A	0.93	C	1.00	C	1.00	A	0.39	C	0.98	B				
3C	TR2	NONE	JAX			1.00	A	1.00	A							1.00	A						
3C	TR2	NONE	MAC	0.82	B	0.84	A	0.99	C	0.96	C	0.96	C	1.00	A		A	0.94	C				
3C	TR2	NONE	SPR	0.16	A	0.03	A	0.78	A	1.00	A	1.00	C	1.00	A	0.31	C	1.00	A				
3C	TR2	NONE	WHB	1.00	A	1.00	A							1.00	A	1.00	A	1.00	A				
3C	TR3	NONE	HER			0.00	C											0.00	A		A		
3C	TR3	NONE	SPR																		A		

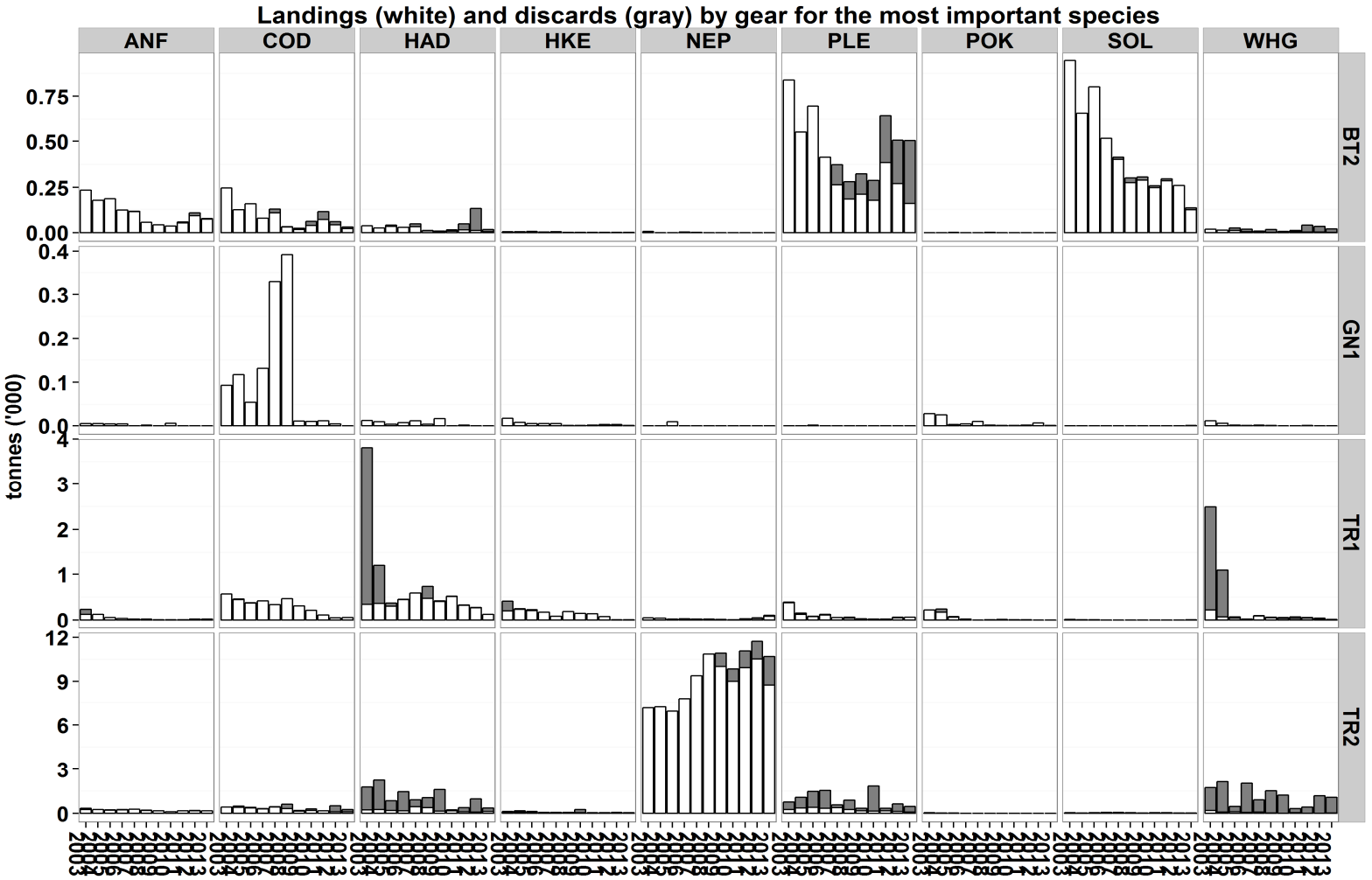


Figure 5.5.2.1 Irish Sea. Landings (t) by gear according to Coun. Reg. 1342/2008 and species, 2003-2013. N.B. CPart11 catch is excluded from this plot.

5.5.3 ToR 1.d CPUE and LPUE of cod by fisheries and by Member States

Note, Ireland resubmitted landings data from 2009-2013 in which cod landings recorded in ICES rectangles 33E2 and 33E3 of VIIa have been reassigned to ICES division VIIg due to uncertainty in catch origin. This is in line with the Irish cod submission to ICES for assessment. In addition, in 2013 Northern Ireland stopped utilising special condition CPart13B and CPart13C in favour of CPart13A.

Only a LPUE (landings per unit effort) time series is presented for cod (Table 5.5.3.1) as discard data is not consistently available for all years or all categories, resulting in distorted CPUE trends. Catch per unit effort may be available for some years/gears on request. The units used are grams per kW days-at-sea (g/kW*days). Gear groups with little effort, and static gears where the use of kW*days-at-sea as an appropriate indication of effort is debatable, may have unrepresentative values and are not discussed.

Within the earlier years, cod LPUE values are highest within the GN1 category (Table 5.5.3.1 and Figure 5.5.3.1). Ireland is the primary nation influencing this trend, the sudden reduction in 2009 relates to the reallocation of Irish cod landings into the Celtic Sea in subsequent years. Gillnet LPUEs prior to 2009 are likely to suffer the same uncertainty in origin. Values within this category may also be unrepresentative given the uncertainty in effort, which may also be the explanation for large LPUE values in LL1 and GT1 in several years.

Gillnetting is a small fleet within the Irish Sea. The most significant cod landings and effort occur within demersal trawl and seine categories TR1 and TR2. Over the period 2003-2009 TR1 LPUE increased, since the inception of special conditions in 2009, the LPUEs are higher in the CPart13a, CPart13b and CPart13c categories than the no special condition. The current total LPUE for cod in TR1 is higher in the most recent years than earlier in the time series. The TR2 LPUEs are lower than the TR1 group. LPUE had increased in 2011-12 within the no special condition category, although now little to nominal effort is directed to this group. The majority of effort is under CPart13a, CPart13b, CPart13c, the LPUEs for each of these are far lower than the NONE category. CPart11 show a low, non-zero LPUE of cod in 2013.

Tables showing LPUE and CPUE by gear groups (regulated and unregulated), area and nation are not presented in this report but are available on the JRC website:

http://stecf.jrc.ec.europa.eu/web/stecf/ewg1413

Table 5.5.3.1 Irish Sea. Cod LPUE (g/(kW*days)) by gear group according to Coun. Reg. 1342/2008 and year, 2004-2013. CPUE including discard estimates are limited and can be found at

http://stecf.jrc.ec.europa.eu/web/stecf/ewg1413.

ANNEX	SPECIES	REG AREA	REG GEAR	SPECON	LPUE 2004	LPUE 2005	LPUE 2006	LPUE 2007	LPUE 2008	LPUE 2009	LPUE 2010	LPUE 2011	LPUE 2012	LPUE 2013	LPUE 2011-2013
IIA	COD	3C	TR1	CPART13A										1355	1355
IIA	COD	3C	TR1	CPART13B							38	39	561		353
IIA	COD	3C	TR1	CPART13C						785	610	580	625		541
IIA	COD	3C	TR1	NONE	259	302	396	600	783	150	174	225	41	94	95
IIA	COD	3C	TR2	CPART13A						10		112	27	29	34
IIA	COD	3C	TR2	CPART13B						15	11	9	19		15
IIA	COD	3C	TR2	CPART13C						31	50	42	39	8	36
IIA	COD	3C	TR2	NONE	80	73	65	84	63	73	156	127	108	74	123
IIA	COD	3C	BT2	NONE	62	66	46	70	33	22	45	74	52	45	60
IIA	COD	3C	GN1	NONE	1547	1432	3441	6362	8640	437	409	460	207		331
IIA	COD	3C	GT1	NONE				1524	418	248	2033	678			263
IIA	COD	3C	LL1	NONE	17	21	50	82	479						
IIA	COD	3C	TR2	CPART11										23	7

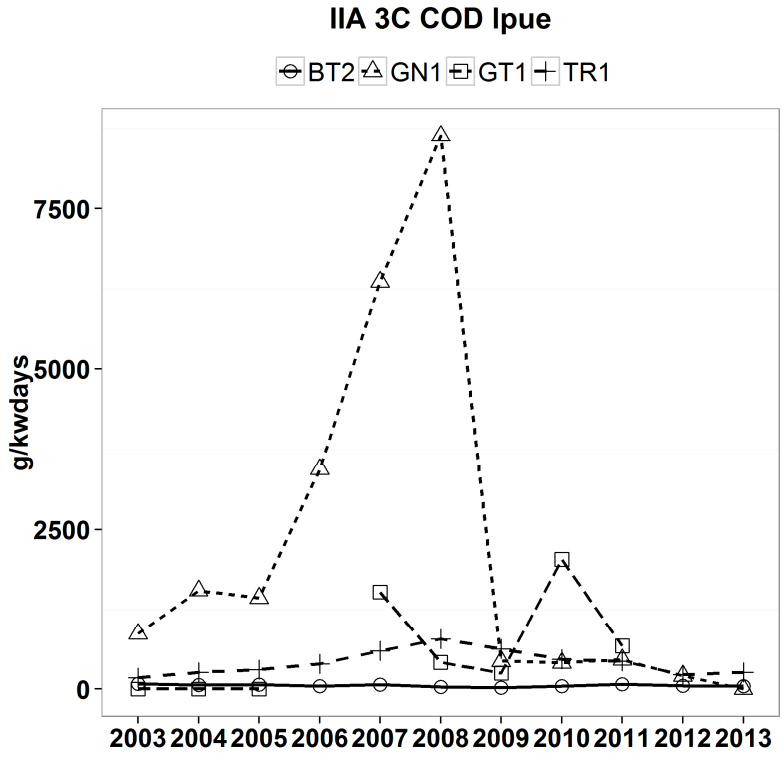


Figure 5.5.3.1. Irish Sea. Trends in cod LPUE (g/kW*days) by the average top four gear groups associated with Coun. Reg. 1342/2008, 2003-2013.

5.5.4 ToR 2 Rank regulated gear groups on the basis of catches expressed both in weight and in number of cod

Note, Ireland resubmitted landings data from 2009-2013 in which cod landings recorded in ICES rectangles 33E2 and 33E3 within ICES division VIIa have been reassigned to VIIg due to uncertainty in catch origin. This is in line with the Irish cod submission to ICES for assessment. In addition, in 2013 Northern Ireland stopped utilising special condition CPart13B and CPart13C in favour of CPart13A.

Ranked landings (Table 5.5.4.1) in weight for cod have been used. Catch rankings have not been presented as discard data are not consistently available for all years or all categories introducing bias into the ranking. Information on ranked catches may be available on request.

Over the majority of the period, TR1 land the greatest proportion of cod (~40%), however this changed in 2010 when the proportions fell below TR2. This placed TR2 as the top ranked gear from 2011 which has increased in proportions since 2009. BT2, ranking third, showed increased contributions in 2011 and 2012 to ~20%, returning to 12% in 2013.

The removal of Irish reported cod from 33E2 and 33E3 since 2009 has greatly influenced the proportion assigned to gillnets for which the majority of landings originate from Irish landings. Early time series

GN1 proportions were around 10%, but increased in 2007 and 2008 to between 27-32%, and continued in 2013 data submissions. With the reassignment of Irish Cod the GN1 proportion fell to <2%, this would indicate reassignment should also be considered for 2007 and 2008.

Table 5.5.4.1 Irish Sea. Ranked derogations according to relative cod landings in weight (t), 2004-2013. Ranking is according to the year 2013. N.B. any CPart11 landings are excluded from this table.

annex	reg_area	reg_gear	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
IIA	3C	TR2	0.35785	0.38737	0.32957	0.35447	0.25583	0.31381	0.42100	0.45858	0.52116	0.56332
IIA	3C	TR1	0.40119	0.39037	0.44321	0.28147	0.38599	0.62571	0.46630	0.30611	0.24912	0.31074
IIA	3C	BT2	0.11244	0.16279	0.08354	0.08910	0.02526	0.03483	0.08496	0.19972	0.20963	0.11845
IIA	3C	NONE										0.00546
IIA	3C	PEL_TRAWL	0.00164			0.00007		0.00184	0.00315	0.00017	0.00005	0.00085
IIA	3C	GN1	0.10509	0.05721	0.13956	0.27333	0.32270	0.02101	0.02105	0.03126	0.01968	0.00074
IIA	3C	LL1	0.00097	0.00185	0.00358	0.00093	0.00972			0.00003	0.00031	0.00031
IIA	3C	POTS	0.00318	0.00027	0.00030	0.00011	0.00003	0.00024	0.00006		0.00004	0.00013
IIA	3C	BEAM	0.00717				0.00000					
IIA	3C	DREDGE	0.00121	0.00014	0.00005			0.00004			0.00001	
IIA	3C	GT1				0.00051	0.00047	0.00252	0.00347	0.00412		
IIA	3C	OTTER	0.00822		0.00019					0.00002		
IIA	3C	PEL_SEINE	0.00103									

5.5.5 ToR 3 Information on small boats (<10m)

It should be noted that under 10m vessels are not required to report effort levels in the same way as larger vessels. As such not all nations operating within the Irish Sea have been able to provide this information. Presented is information from England (including Northern Ireland and Isle of Man), France (small amount 2010-2012) and Scotland. The methodology for production of this data may vary between nations. For details, refer to the national data descriptions in Section 4.

5.5.5.1 Fishing effort of small boats by Member State

The majority of effort by the under 10m vessels reported here is directed at pots and traps (Table 5.5.5.1.1). The effort levels increased greatly in 2006 due to the introduction of buyers and sellers notes into the UK who have used these to estimate effort. Under 10 effort dropped during 2009 and 2010, increasing again thereafter. Dredge effort has been increasing in recent years now occurring at similar levels as those for TR2 gear.

Table 5.5.5.1.1. Irish Sea trends in nominal effort (kW*days at sea) of under 10m vessels by gear groups of Annex I, Coun. Reg. 1342/2008 and unregulated gears, 2003-2013. National data qualities are summarised in Section 4.

ANNEX	AREA	Reg_gear	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
IIa	3c	TR1	14080	2043	2747	1624	3313	6692	4523	2885	6423	8090	10781
IIa	3c	TR2	167205	220378	240805	208490	234149	276620	284710	164095	214743	236466	176758
IIa	3c	BT2	1718	2354	9386	10855	2888	1884	627	623	178	89	
IIa	3c	GN1	12429	13342	10545	10940	34100	45173	35398	27087	28213	25948	29559
IIa	3c	GT1				78	22	424	9	330	4301	134	
IIa	3c	LL1		0	3107	10348	6469	3656	5028	4811	22857	25531	30150
IIa	3c	BEAM	414	11750	327	2580	8779	6010	3164	7246	4228	2702	4443
IIa	3c	DEM_SEINE							662		75		
IIa	3c	DREDGE	18631	18654	11709	44601	60910	160354	109787	116792	161012	205495	170084
IIa	3c	NONE					425	425			726	280	7480
IIa	3c	OTTER	119			311	295	75		637			104
IIa	3c	PEL_SEINE						142					
IIa	3c	POTS	237544	293990	295377	1068497	1124087	1023622	720517	695537	864323	867746	772533
Grand Total			**452140**	**562511**	**574003**	**1358324**	**1475437**	**1525077**	**1164425**	**1020043**	**1307079**	**1372481**	**1201893**

5.5.5.2 Catches (landings and discards) of cod and associated species by small boats by Member State

Table 5.5.5.2.1 provides landing, discard and discard rate data for vessels under 10m, including data from England (inc Northern Ireland and Isle of Man), Scotland, France, and Ireland, for the main species landed. Irish under 10 meter vessel landings are not recorded by gear type, therefore fall into the “none” category. Total under 10m landings in 2013 are around half those of the preceding three years, originating from a substantial drop in BT2 landings. This may result from submission of preliminary 2013 data. With the addition of the "OTH" category to the data call, this is now the dominant landings category for under 10m vessels indicating species important to under 10m vessels are not currently considered within the data call. Baring "OTH", under 10m vessels in the Irish Sea land predominantly edible crab (CRE), previously over 1kt per year having increased to over 2kt in the last three years. This was substantially lower in 2009. As of 2008, scallops represent the second greatest landings, peaking in 2011 and 2012 with over 1.2kt. In addition to these, sprat, spider crab, Nephrops and herring dominate the remainder of landings reported to the group. In 2013, the list also included queen scallops with 261t reported with no previous track record. Where gear type is available, landings primarily originate from "none" (all Irish landings in this category), pots, and dredges. Irish under 10m vessels are likely to employ a similar gear distribution.

Under 10m vessels contribute a small proportion to the total Irish Sea cod landings, since 2009 this has typically been <10%, although in 2012 it was 19% the majority of which stems from the "none" category where gear type is unknown. This compares to the ~89-94% of cod landings originating from ≥10m regulated gears (in 2012 this fell to 81%). Typically landings do not occur from unregulated ≥10m vessels, although in 2013 4% of landings originated from this category (which includes CPart11).

Table 5.5.5.2.1. Irish Sea. Landings (t), discards (t) and discard rate for the top 10 species landed in 2013 by gear according to Coun. Reg. 1342/2008 categories for under 10m vessels, 2004-2013. For landings, discards and discard rates by Country refer to the website. N.B. this table contains a select list of species.

AREA	GEAR	SPECIES	2004 L	2004 D	2004 R	2005 L	2005 D	2005 R	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R	2013 L	2013 D	2013 R
3C	BEAM	BSS							2.42	0.00	0.00	1.23	0.00	0.00	0.18	0.00	0.00	0.01	0.00	0.00	0.37	0.00	0.00	0.04	0.00	0.00	0.12	0.00	0.00			
3C	BEAM	CRE																0.26	0.00	0.00												
3C	BEAM	HER																			0.00	0.00					0.00	0.00				
3C	BEAM	MAC							0.11	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00				0.00	0.00	0.00				0.00	0.00	0.00			
3C	BEAM	NEP																						0.33	0.00	0.00				0.39	0.00	0.00
3C	BEAM	PLE				0.69	0.00	0.00	0.26	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.42	0.00	0.00	0.03	0.00	0.00	0.01	0.00	0.00	0.13	0.00	0.00
3C	BEAM	SCE																									0.00	0.00	0.00			
3C	BEAM	SPR																														
3C	BT2	BSS				0.04	0.00	0.00	0.11	0.00	0.00	0.01	0.00	0.00	0.14	0.00	0.00															
3C	BT2	PLE	0.10	0.00	0.00	14.23	0.00	0.00	16.17	0.00	0.00	2.74	0.52	0.19	2.09	1.17	0.56										0.00	0.00	1.00			
3C	BT2	QSC	0.28	0.00	0.00																											
3C	BT2	SCE	0.02	0.00	0.00																											
3C	DREDGE	BSS										0.06	0.00	0.00				0.16	0.00	0.00	0.48	0.00	0.00				0.00	0.00	0.00	0.02	0.00	0.00
3C	DREDGE	CRE													0.26	0.00	0.00				0.03	0.00	0.00	0.53	0.00	0.00	0.23	0.00	0.00			
3C	DREDGE	MAC													0.01	0.00	0.00	0.03	0.00	0.00												
3C	DREDGE	NEP							0.07	0.00	0.00										0.54	0.00	0.00				2.23	0.00	0.00			
3C	DREDGE	PLE													0.00	0.00	0.00	0.01	0.00	0.00	0.43	0.00	0.00	0.00	0.00	0.00	1.06	0.00	0.00	0.18	0.00	0.00
3C	DREDGE	QSC													1.16	0.00	0.00													25.18	0.00	0.00
3C	DREDGE	SCE	26.88	0.00	0.00	21.45	0.00	0.00	58.97	0.00	0.00	114.88	0.00	0.00	586.21	0.00	0.00	581.34	0.00	0.00	641.44	2.30	0.00	1144.38	72.19	0.06	1276.74	24.02	0.02	830.89	27.08	0.03
3C	GN1	BSS	2.19	0.00	0.00	0.37	0.00	0.00	9.27	0.00	0.00	15.81	0.00	0.00	13.09	0.00	0.00	17.61	0.00	0.00	8.13	0.00	0.00	8.65	0.00	0.00	9.86	0.17	0.02	16.52	0.00	0.00
3C	GN1	CRE	0.00	0.00	0.00	0.01	0.00	0.00	0.29	0.00	0.00	13.41	0.00	0.00	8.59	0.00	0.00	5.41	0.00	0.00	0.82	0.00	0.00	1.62	0.00	0.00	0.49	0.00	0.00	0.05	0.00	0.00
3C	GN1	HER				103.42	0.00	0.00	19.79	0.00	0.00	32.60	0.00	0.00	151.72	0.00	0.00	170.61	0.00	0.00	129.20	0.00	0.00	149.05	0.00	0.00	39.45	0.00	0.00	110.35	0.00	0.00
3C	GN1	MAC							0.00	0.00		0.36	0.00	0.00	0.41	0.00	0.00	0.60	0.00	0.00	0.43	0.00	0.00	0.84	0.00	0.00	0.58	0.00	0.00	0.73	0.00	0.00
3C	GN1	NEP										0.05	0.00	0.00				0.10	0.00	0.00												
3C	GN1	PLE	2.21	0.00	0.00	2.91	0.00	0.00	1.50	0.00	0.00	6.00	0.00	0.00	1.56	0.00	0.00	2.38	0.00	0.00	4.12	0.00	0.00	2.20	0.00	0.00	4.15	0.00	0.00	2.37	0.00	0.00
3C	GN1	SCE																0.52	0.00	0.00							0.07	0.00	0.00			
3C	GT1	BSS							0.00	0.00	0.00	0.01	0.00	0.00							0.10	0.00	0.00	0.16	0.00	0.00						
3C	GT1	CRE													1.34	0.00	0.00															
3C	LL1	BSS	0.05	0.00	0.00				0.13	0.00	0.00	0.16	0.00	0.00	0.91	0.00	0.00	0.63	0.00	0.00	0.69	0.00	0.00	0.29	0.00	0.00	0.42	0.00	0.00	0.28	0.00	0.00
3C	LL1	CRE																0.13	0.00	0.00				0.03	0.00	0.00	0.03	0.00	0.00	1.34	0.00	0.00
3C	LL1	HER																						0.63	0.00	0.00	0.88	0.00	0.00	0.95	0.00	0.00
3C	LL1	MAC							5.36	0.00	0.00	4.74	0.00	0.00	3.11	0.00	0.00	6.66	0.00	0.00	10.12	0.00	0.00	13.01	0.00	0.00	14.44	0.00	0.00	11.40	0.00	0.00
3C	LL1	PLE													0.05	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00				0.01	0.00	0.00	0.01	0.00	0.00

Table 5.5.5.2.1. Irish Sea. Continued.

AREA	GEAR	SPECIES	2004 L	2004 D	2004 R	2005 L	2005 D	2005 R	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R	2013 L	2013 D	2013 R
3C	NONE	CRE	1028.61	0.00	0.00	1106.73	0.00	0.00	70.04	0.00	0.00	292.57	0.00	0.00	261.88	0.00	0.00	251.47	0.00	0.00	683.65	0.00	0.00	1116.77	0.00	0.00	1030.29	0.00	0.00	1062.57	0.00	0.00
3C	NONE	HER	1.70	0.00	0.00							5.00	0.00	0.00	87.09	0.00	0.00	132.80	0.00	0.00	105.00	0.00	0.00	135.74	0.00	0.00	362.96	0.00	0.00	0.18	0.00	0.00
3C	NONE	MAC	81.29	0.00	0.00				74.00	0.00	0.00							61.55	0.00	0.00	47.91	0.00	0.00	18.88	0.00	0.00	44.04	0.00	0.00	13.58	0.00	0.00
3C	NONE	NEP	18.18	0.00	0.00							1.30	0.00	0.00				1.31	0.00	0.00	2.19	0.00	0.00	16.16	0.00	0.00	195.42	0.00	0.00	25.18	0.00	0.00
3C	NONE	PLE	10.68	0.00	0.00							0.25	0.00	0.00	0.08	0.00	0.00	0.19	0.00	0.00	0.27	0.00	0.00	0.36	0.00	0.00	3.20	0.00	0.00	0.01	0.00	0.00
3C	NONE	RAJ	35.16	0.00	0.00							2.27	0.00	0.00	27.58	0.00	0.00	13.47	0.00	0.00	18.98	0.00	0.00	13.49	0.00	0.00	29.87	0.00	0.00	26.05	0.00	0.00
3C	NONE	SCE	0.12	0.00	0.00										36.34	0.00	0.00	3.44	0.00	0.00	1.74	0.00	0.00	57.22	0.00	0.00	78.45	0.00	0.00	47.31	0.00	0.00
3C	NONE	SPR													30.52	0.00	0.00							160.54	0.00	0.00	687.00	0.00	0.00	537.00	0.00	0.00
3C	OTTER	BSS										0.01	0.00	0.00																		
3C	OTTER	NEP							0.15	0.00	0.00																			0.04	0.00	0.00
3C	OTTER	PLE							0.07	0.00	0.00	0.20	0.00	0.00																		
3C	OTTER	SPR							0.03	0.00	0.00																					
3C	PEL_SEINE	NEP													0.28	0.00	0.00															
3C	POTS	BSS				0.88	0.00	0.00				0.18	0.00	0.00	0.26	0.00	0.00	0.40	0.00	0.00	0.12	0.00	0.00	0.51	0.00	0.00	0.60	0.00	0.00	0.17	0.00	0.00
3C	POTS	CRE	174.14	0.00	0.00	165.90	0.00	0.00	987.53	0.00	0.00	1232.58	0.00	0.00	805.90	0.00	0.00	619.45	0.00	0.00	874.42	0.00	0.00	1047.38	0.00	0.00	1027.77	0.00	0.00	1077.56	0.00	0.00
3C	POTS	HER																0.08	0.00	0.00				0.15	0.00	0.00				0.00	0.00	0.00
3C	POTS	MAC							2.84	0.00	0.00	10.66	0.00	0.00	5.30	0.00	0.00	5.99	0.00	0.00	11.65	0.00	0.00	19.50	0.00	0.00	5.73	0.00	0.00	12.19	0.00	0.00
3C	POTS	NEP	0.83	0.00	0.00	3.60	0.00	0.00	12.94	0.00	0.00	13.53	0.00	0.00	14.67	0.00	0.00	9.49	0.00	0.00	16.29	0.00	0.00	8.62	0.00	0.00	16.04	0.00	0.00	10.52	0.00	0.00
3C	POTS	PLE				0.02	0.00	0.00				0.03	0.00	0.00				0.14	0.00	0.00	0.00	0.00		0.54	0.00	0.00				0.00	0.00	0.00
3C	POTS	SCE										2.05	0.00	0.00	3.20	0.00	0.00	0.29	0.00	0.00	0.18	0.00	0.00				0.58	0.00	0.00	2.18	0.00	0.00
3C	POTS	SPR																0.01	0.00	0.00												
3C	TR1	BSS	0.02	0.00	0.00				0.00	0.00	0.00	0.02	0.00	0.00	0.23	0.00	0.00										0.01	0.00	0.00			
3C	TR1	CRE																												0.01	0.00	0.00
3C	TR1	MAC																												0.00	0.00	0.00
3C	TR1	NEP													0.01	0.00	0.00	0.19	0.00	0.00										0.89	0.00	0.00
3C	TR1	PLE	5.10	0.46	0.09	1.74	0.03	0.02	0.61	0.00	0.00	2.90	0.02	0.01	5.63	0.10	0.02	3.01	0.00	0.00	4.38	0.15	0.04	0.87	0.00	0.00	6.51	0.10	0.02	1.67	0.13	0.08
3C	TR1	QSC																												81.25	0.00	0.00
3C	TR2	BSS	0.01	0.00	0.00	0.11	0.00	0.00	1.28	0.00	0.00	1.87	0.00	0.00	1.09	0.00	0.00	0.61	0.00	0.00	0.36	0.00	0.00	0.12	0.00	0.00				0.01	0.00	0.00
3C	TR2	CRE	0.02	0.00	0.00	0.28	0.00	0.00	0.48	0.00	0.00	0.08	0.00	0.00	0.28	0.00	0.00	0.12	0.00	0.00	0.07	0.00	0.00	0.09	0.00	0.00	0.52	0.00	0.00	0.64	0.00	0.00
3C	TR2	HER										0.00	0.00	0.00				0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.04	0.00	0.00
3C	TR2	MAC							0.51	55.77	109.15	0.26	4.48	17.04	0.23	5.02	21.46	0.23	0.00	0.00				0.07	0.00	0.00	0.18	0.29	1.65			
3C	TR2	NEP	222.01	0.00	0.00	248.51	0.00	0.00	414.60	0.00	0.00	289.60	0.00	0.00	399.47	0.00	0.00	422.68	15.23	0.04	316.65	8.27	0.03	384.43	0.92	0.00	419.15	0.77	0.00	294.21	45.32	0.15
3C	TR2	PLE	34.75	17.07	0.49	69.93	206.68	2.96	57.21	125.19	2.19	93.14	1.89	0.02	64.35	16.83	0.26	54.81	10.28	0.19	25.98	155.99	6.00	12.36	14.16	1.15	21.98	34.86	1.59	12.31	55.82	4.54
3C	TR2	QSC																												154.57	0.00	0.00
3C	TR2	SCE							0.00	0.00	0.00	0.22	0.00	0.00	0.15	0.00	0.00	4.42	0.00	0.00	1.73	0.00	0.00	0.67	0.00	0.00	1.02	0.00	0.00	0.27	0.00	0.00
3C	TR2	SPR													1.58	0.00	0.00															

5.5.6 ToR 4 Spatio-temporal patterns in effective effort by fisheries

Spatial figures of effort for the Irish Sea concentrate on those categories identified as significant in recorded effort, and/or cod catches. Figures use a common scale across years for a given gear group, but scales are unique to each category such that the colours assigned to statistical rectangles for gear group TR1 cannot be compared directly to those assigned for TR2.

TR1: At the beginning of the presented time series, TR1 effort was focused across the Northern border and western Irish Sea. Subsequently effort has declined to an overall low level. In 2011 this was limited to the northern and western areas, expanding across the whole area again in 2012 and 2013 (Figure 5.5.6.1).

TR2: Clear TR2 effort focal points occur within the Irish Sea, coinciding with areas of mud based substrate representing the *Nephrops* grounds, with most effort occurring in the Western Irish Sea across two rectangles. In addition, there is an additional secondary focus in the Eastern Irish Sea. Over the period there has been a reduction in effort, with indications of this in the contraction of both focus areas (Figure 5.5.6.2).

BT2: This gear has shown a marked contraction in fishing areas and effort within the Irish Sea (Figure 5.5.6.3). Two of the three focus areas which were present in 2003 still occur in 2011. The southernmost focus had reduced to background effort levels a number of years ago reappeared in 2012, disappearing again in 2013.

GN1: The measure of spatial effort submitted in the data call is not considered appropriate for application to static gears. However, the figure for gillnet effort is provided here as an indication of spatial distribution as this gear category can contain relatively high cod catches. Gillnet effort distribution has been changeable over the period, although current focus is in the eastern Irish Sea above Wales (Figure 5.5.6.4). This focus has been showing an increasing trend in effort since 2010.

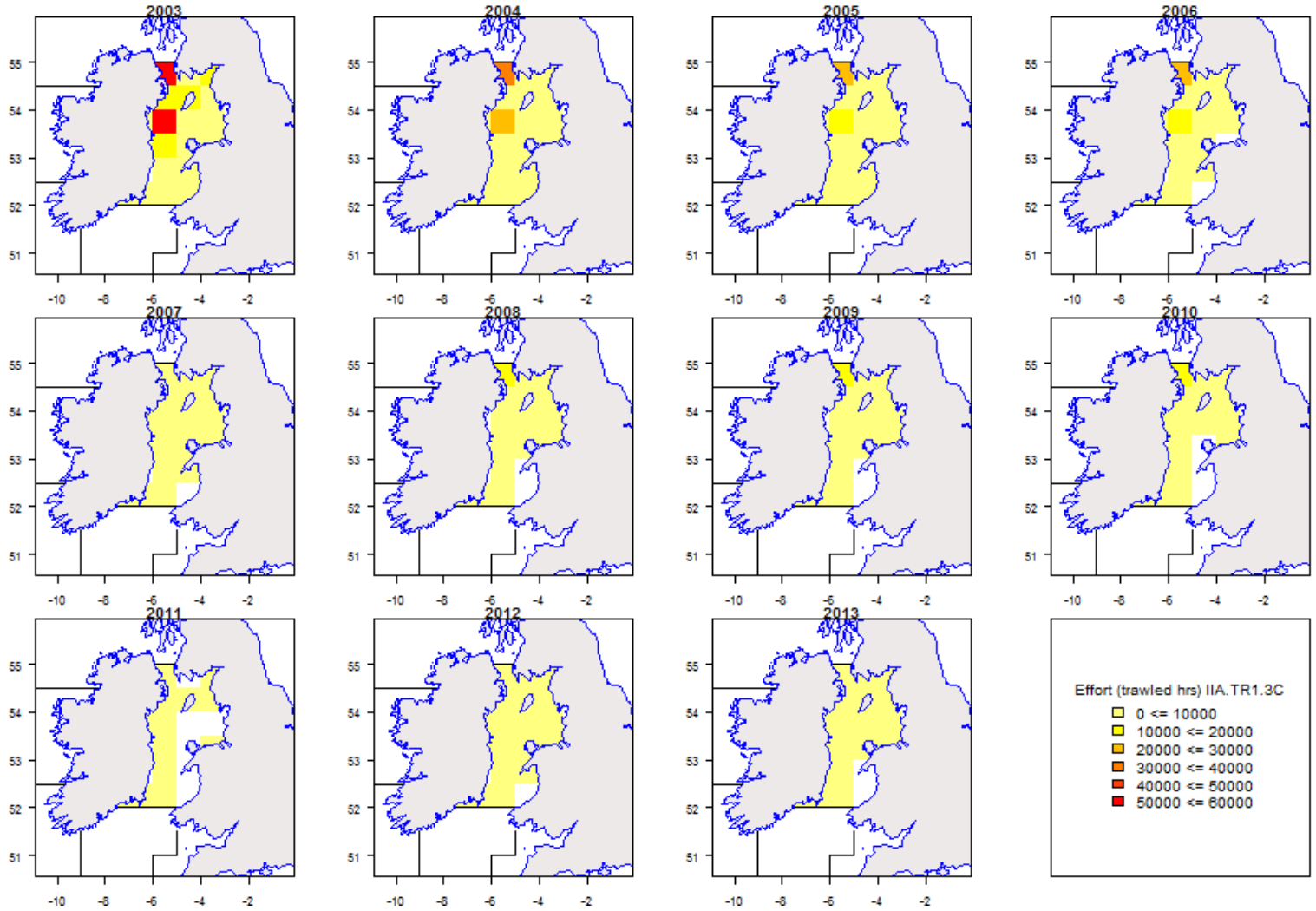


Figure 5.5.6.1. Irish Sea. Spatial distribution of effort (trawled hours) by ICES statistical rectangle for TR1, 2003-2013. N.B. These figures include effort carried out under special condition CPart11.

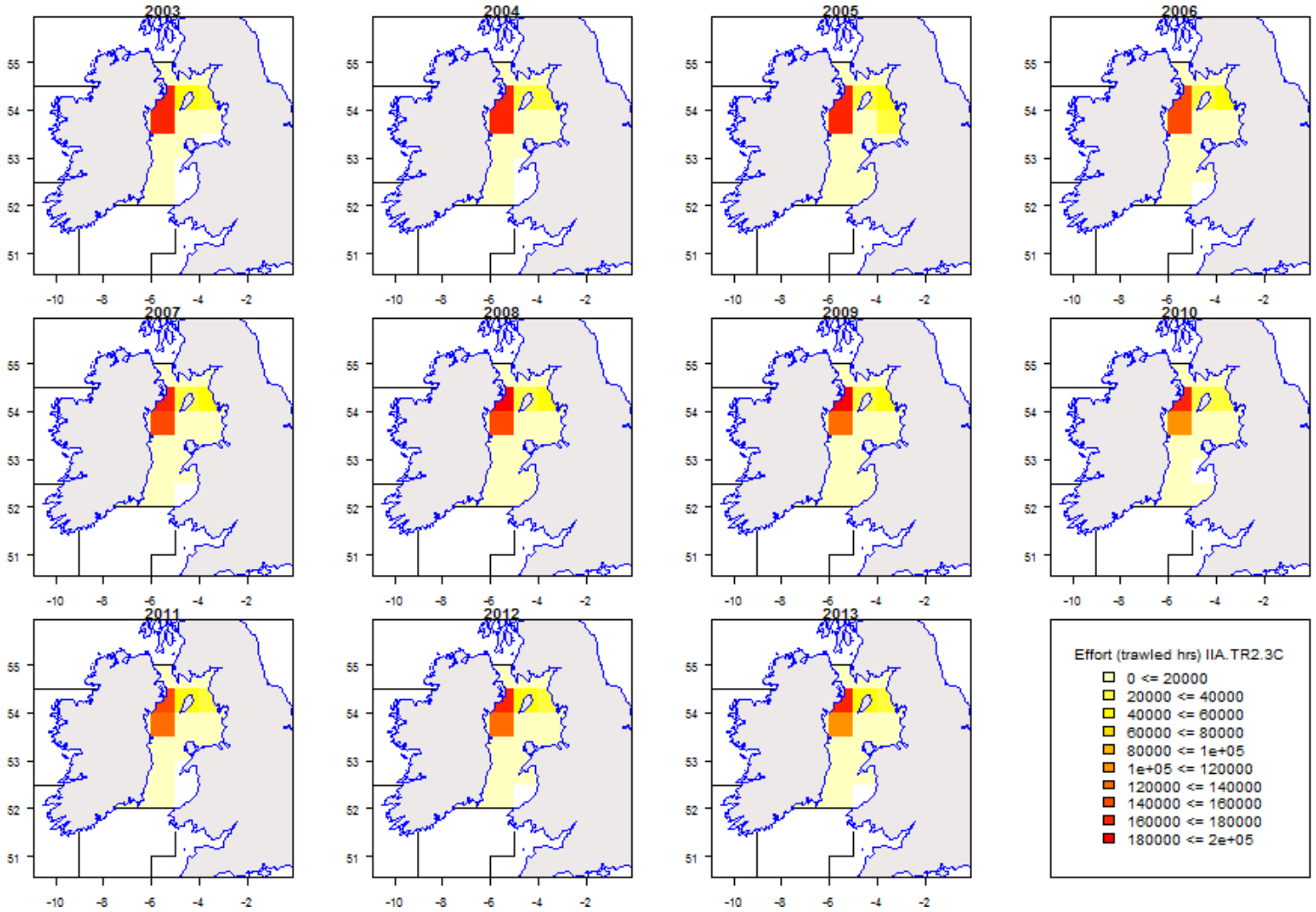


Figure 5.5.6.2. Irish Sea. Spatial distribution of effort (trawled hours) by ICES statistical rectangle for TR2, 2003-2013. N.B. These figures include effort carried out under special condition CPart11.

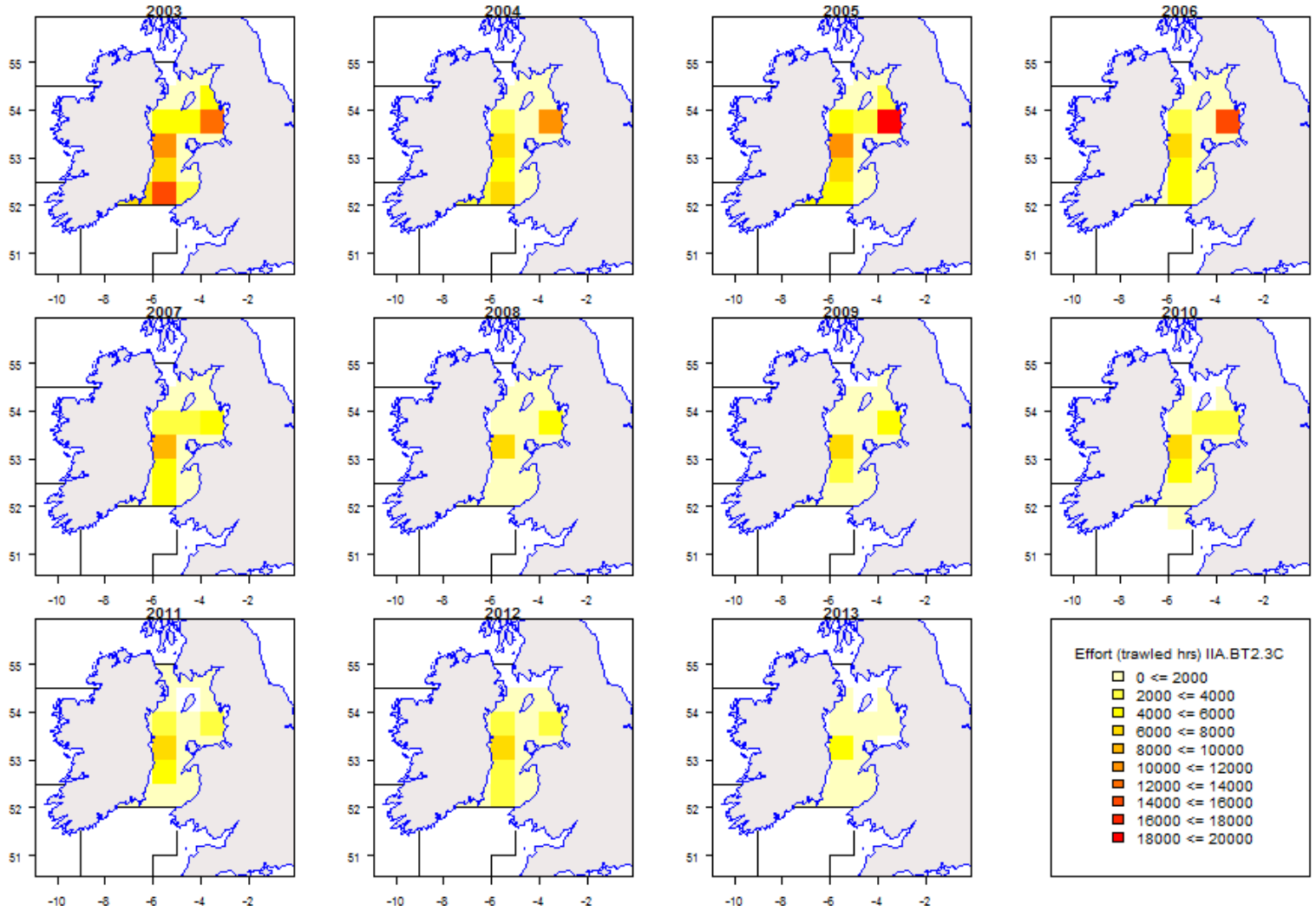


Figure 5.5.6.3. Irish Sea. Spatial distribution of effort (trawled hours) by ICES statistical rectangle for BT2, 2003-2013.

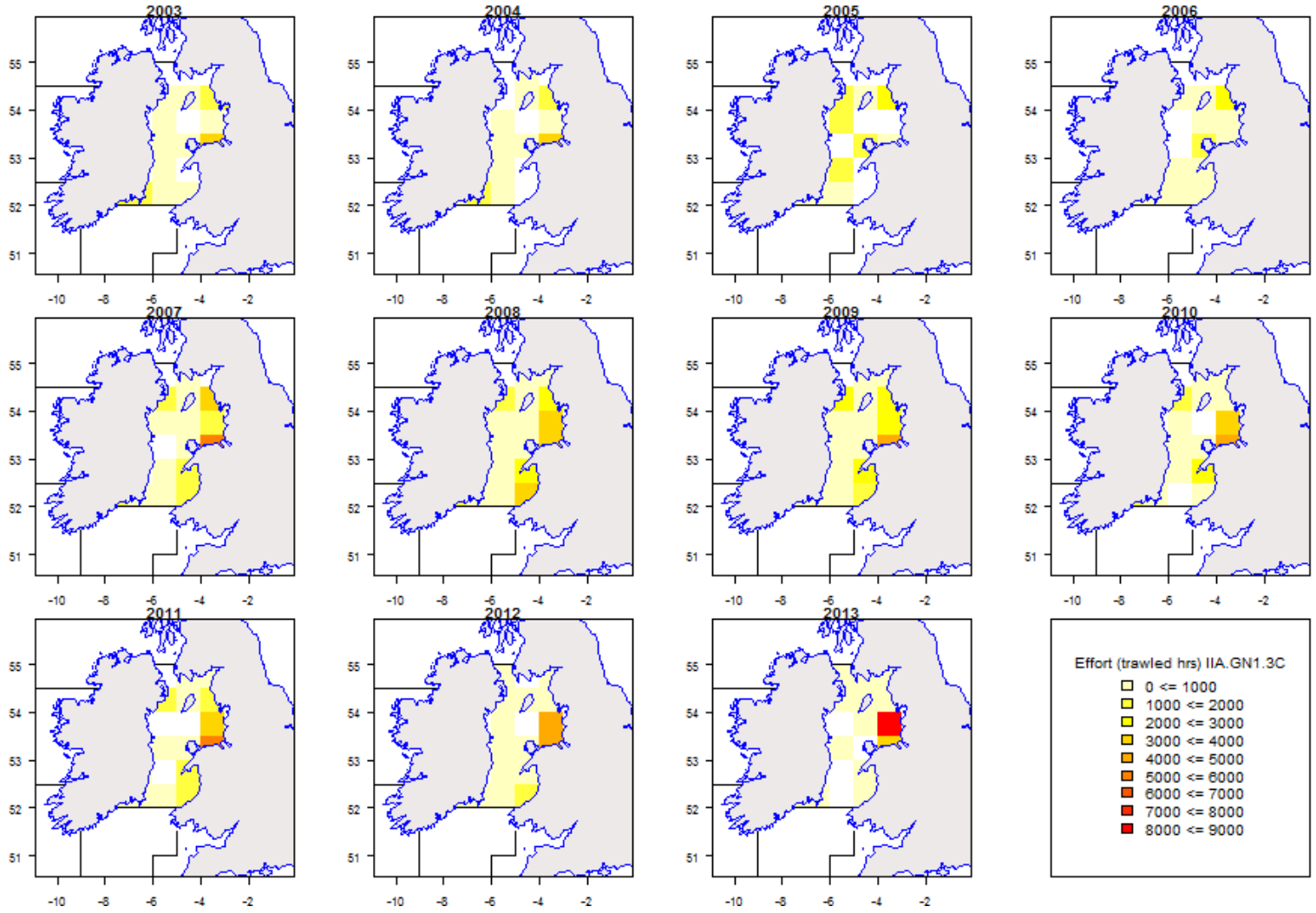


Figure 5.5.6.4. Irish Sea. Spatial distribution of effort (trawled hours) by ICES statistical rectangle for GN1, 2003-2013.

5.5.7 ToR 5 Remarks on quality of catches and discard estimates

Over time greater volumes of discard information is being provided by member states. However, this information is still scarce, or patchy for a number of gear categories. Where discard data is available it is considered to be highly variable, with unknown accuracy.

Ireland resubmitted landings data from 2009-2013 in which cod landings recorded in ICES rectangle 33E2 and 33E3 of ICES division VIIa have been reassigned to VIIg due to uncertainty in catch origin. This is in line with the Irish cod submission to ICES for assessment. In addition, in 2013 Northern Ireland stopped utilising special condition CPart13B and CPart13C in favour of CPart13A. In the last two years (2012-2013) Northern Ireland discards for TR2 (first under CPart13B, then CPart13A) increased greatly compared to other available discard data for this group.

No other unexpected evolutions in effort or catch trends by Member state or fishery were observed in the addition of 2013 data.

5.5.8 ToR 6 Estimation of conversion factors to be applied for effort transfers between regulated gear groups

Note, Ireland resubmitted landings data from 2009-2013 in which cod landings recorded in ICES rectangle 33E2 and 33E3 of ICES division VIIa have been reassigned to VIIg due to uncertainty in catch origin. This is in line with the Irish cod submission to ICES for assessment. The majority of these landings were reported with gillnet gears, with little effect to the dominant gear categories in the Irish Sea.

The table of international conversion factors (Table 5.5.8.1) is based on average CPUE (2011-2013). LPUEs are used for GN1, GT1 and LL1 fisheries as time series of discard data were not available. TR1, TR2, and BT2 gear categories have discard data over the three previous years. A one to one ratio can be seen for BT2 to TR2, but the reverse exchange is lower. One to one exchanges are also seen for TR1 to BT2 or TR2, again the reverse exchanges are lower.

Table 5.5.8.1 Irish Sea. Conversion factors for exchange of effort between gears based on average CPUE 2011-2013. Red cells indicate no discard data available; green cells indicate discard information available.

Irish Sea

	donor gear	receiving gear							2011-2013		
		BT2	GN1	GT1	LL1	TR1	TR2	TR3	CPUE	LPUE	factor =
3c	BT2		0.269	0.338	1	0.284	1	1	89	60	if factor > 1 then
3c	GN1	1		1	1	1	1	1	331	331	factor = 1
3c	GT1	1	0.795		1	0.84	1	1	263	263	
3c	LL1	0.011	0.003	0.004		0.003	0.013	1	1	1	if CPUE=0 or LPUE = 0 then
3c	TR1	1	0.946	1	1		1	1	313	312	CPUE=1 or LPUE=1
3c	TR2	0.888	0.239	0.3	1	0.252		1	79	31	
3c	TR3	0.011	0.003	0.004	1	0.003	0.013		1	1	

5.5.9 ToR 7 Estimation of partial fishing mortalities of cod by area, Member State and fisheries and correlation between partial cod mortality and fishing effort by area, Member State and fisheries

The STECF EWG 14-13 presents partial fishing mortalities of cod by major fisheries and Member States in relation to the estimated fishing mortality by ICES (2014) and landings (Table 5.5.9.1) in relation to the estimated total catch for the year available. The full list of all fisheries can be downloaded from the EWG's web page: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1413. The anticipated trend in fishing mortality as derived from the cod plan is also presented in the following Tables 5.5.9.1. The sustainable exploitation target is defined as F_{MSY}=0.4. The trends in fishing effort in units of kW days at sea of the relevant fisheries are also presented in Tables 5.5.9.1.

It can be concluded from the estimated F (Table 5.5.9.1) that the stock is unsustainably exploited with an F nearly 3 times the Fmsy without considering discarding. The fisheries listed within the table contribute around 96% to the total estimated fishing mortality in 2008, which is based on landings only. The landings contribution then drops to only 8.5% in 2013, the remainder being due to ICES estimates of unallocated mortality.

STECF EWG 14-13 notes that the correlations between the summed partial Fs for landings of the regulated fisheries and their estimated fishing efforts are almost all non-significant. The partial landings Fs of most Member State fisheries using regulated gears are not significantly correlated with their specific effort estimates.

Table 5.5.9.1 Cod Irish Sea (landings). The left part of the table lists estimated F trajectories from the management plan and the ICES 2013 cod assessment, as well as partial Fs for landings of fisheries using regulated gears. The right part of the table lists the respective trends in fishing effort (kW days at sea) as well as the correlation parameters between the partial Fs and the fisheries specific fishing effort. Cod plan article 13 assignments apply since 2009 or 2010, as interpreted from the background documents of national declarations. A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs from landings of all effort regulated gears to the overall F estimate of the stock.

Starting 2008 F reductions of 25 percent from previous year as SSB remains below Blim (Fmsy=0.4)

				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
F plan									1.24	0.93	0.698	0.524	0.393	0.295
reduction F plan										-0.25	-0.25	-0.25	-0.25	-0.25
F estimated				1.28	1.25	1.23	1.25	1.25	1.24	1.22	1.19	1.16	1.16	1.15
										-0.02	-0.02	-0.03	0	-0.01
Fpar														
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
BEL	BT2	NONE	landings	0.05811	0.06785	0.15403	0.05697	0.04448	0.01677	0.01627	0.01314	0.02386	0.00891	0.00613
BEL	TR2	NONE	landings		0.00084	0.00212	0.00457	0.00919	0.00936	0.00855	0.00626	0.00218	0.00089	0.00056
ENG	BT2	NONE	landings	0.00207	0.00038	0.00862	0.00134	0.00057	4.00E-05	1.00E-05		9.00E-05		
ENG	GN1	NONE	landings	0.00193	0.00488	0.00479	0.0038	0.00068	1.00E-05	0.00018	0.00081	0.00367	0.00045	
ENG	GT1	NONE	landings					0.00049	0.00054	0.00134	0.00148	0.00105		
ENG	LL1	NONE	landings	0.00044	0.00072	0.0024	0.00343	0.00089				1.00E-05	3.00E-05	3.00E-05
ENG	TR1	CPART13B	landings							2.00E-05	1.00E-05		0.00065	
ENG	TR1	CPART13C	landings							0.00462	0.00844	0.00361	0.00057	0.00024
ENG	TR1	NONE	landings	0.02366	0.04821	0.03271	0.01356	0.00238	5.00E-04					
ENG	TR2	CPART13B	landings								0.00092	0.00039	0.00036	0
ENG	TR2	CPART13C	landings							0.00156	0.00034	0.00046	3.00E-04	0.00015
ENG	TR2	NONE	landings	0.00353	0.01205	0.02239	0.003	0.00359	0.00477					
FRA	TR1	NONE	landings	0.04585	0.02446	0.04068	0.01753	0.01431	0.00301	0.00396	0.00022	0.00252	0.00036	3.00E-04
FRA	TR2	NONE	landings	5.00E-05		0.00142								
GBJ	BT2	NONE	landings	0.00246	0.00421	7.00E-05								
IOM	TR1	NONE	landings	4.00E-05										
IOM	TR2	NONE	landings		5.00E-05	0	1.00E-05	4.00E-05	5.00E-05					
IRL	BT2	NONE	landings	0.01586	0.01023	0.04811	0.0216	0.0419	0.01327	0.006	0.02316	0.02687	0.00897	0.0055
IRL	GN1	NONE	landings	0.02763	0.07238	0.0693	0.12971	0.26602	0.38426	0.01326	0.00818	0.00428	0.00123	7.00E-05
IRL	GT1	NONE	landings						2.00E-05	0.00027				
IRL	LL1	NONE	landings					1.00E-05	0.01158					
IRL	TR1	NONE	landings	0.04234	0.01654	0.01152	0.0044	0.06971	0.1119	0.01148	0.01273	0.00694	0.00227	0.0082
IRL	TR2	CPART13A	landings							0.00161	0.00028	0.03124	0.01594	0.02259
IRL	TR2	NONE	landings	0.07025	0.09397	0.16813	0.12399	0.19235	0.10901	0.06429	0.09224	0.04061	0.00173	
IRL	TR3	NONE	landings			0								
NED	BT2	NONE	landings			0								
NED	TR1	NONE	landings						0.00098					
NIR	GN1	NONE	landings		2.00E-05									
NIR	TR1	CPART13A	landings											0.02165
NIR	TR1	CPART13B	landings							8.00E-05	0.00192	0.001	0.009	
NIR	TR1	CPART13C	landings							0.38001	0.17592	0.0638	0.00797	0.00013
NIR	TR1	NONE	landings	0.06421	0.20437	0.42046	0.38829	0.18824	0.34323					
NIR	TR2	CPART13A	landings										0.00067	0.0309
NIR	TR2	CPART13B	landings							0.00379	0.01532	0.0119	0.01935	
NIR	TR2	CPART13C	landings							0.12024	0.06443	0.02917	0.00462	
NIR	TR2	NONE	landings	0.05726	0.15307	0.3033	0.18327	0.13953	0.18108					
SCO	LL1	NONE	landings	2.00E-05										
SCO	TR1	CPART13C	landings										0.00042	
SCO	TR1	NONE	landings	0.00422	0.00143	0.00018	2.00E-04							
SCO	TR2	CPART13B	landings							0.00066	1.00E-04	0.00071	0.00046	
SCO	TR2	CPART13C	landings										0.00011	0.00113
SCO	TR2	NONE	landings	9.00E-04	0.00316	0.00431	0.00044	0.00117	0.00037					
Sum				0.42083	0.71882	1.29454	0.95611	0.97555	1.19075	0.6382	0.4259	0.25436	0.08526	0.09758
(Sum of Fpars)/estimated F				0.3288	0.5751	1.0525	0.7649	0.7804	0.9603	0.5231	0.3579	0.2193	0.0735	0.0849

EFFORT

				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Effort estimated				11230316	8851257	8836202	7551800	7267682	6569560	5524500	5145714	4973759	5250888	4575290
kW days at sea				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
BEL	BT2	NONE	landings	1884843	1482831	1694567	1153947	956953	554841	624989	649225	690853	616775	368886
BEL	TR2	NONE	landings		13541	43486	34052	76789	67534	29980	14283	29125	20947	13525
ENG	BT2	NONE	landings	172354	68579	161500	59199	31112	17349	5808	1810	41222	13240	221
ENG	GN1	NONE	landings	14872	12326	10011	8378	3930	4297	684	2260	3602	1097	190
ENG	GT1	NONE	landings				475	656	1066	2788	984	1476		2144
ENG	LL1	NONE	landings	44138	58414	93773	59656	12238	840	924		1543	5001	2059.4
ENG	TR1	CPART13B	landings				2541	2310		5544	5319		10416	
ENG	TR1	CPART13C	landings							16316	19792	14364	7988	7100
ENG	TR1	NONE	landings	399886	197351	94201	66364	14536	5932					
ENG	TR2	CPART13B	landings				12243	17787	15246	11319	116327	46765	87715	9073
ENG	TR2	CPART13C	landings							160679	65836	109946	66348	140236
ENG	TR2	NONE	landings	211774	347848	287791	235204	225834	204211					
FRA	TR1	NONE	landings	264447	167253	180515	109174	67487	19701	19701	6668	6138	18034	4739
FRA	TR2	NONE	landings	588		2352		810					395	
GBJ	BT2	NONE	landings	40878	42260	3542								
IOM	TR1	NONE	landings	9070	362	172		649	895					
IOM	TR2	NONE	landings	18628	10826	27205	5427	29763	14592					
IRL	BT2	NONE	landings	860849	414446	514653	481404	550975	374494	173927	218054	212313	179498	142034
IRL	GN1	NONE	landings	92103	63069	26672	29531	47941	40957	22219	22172	20333	9000	2925
IRL	GT1	NONE	landings						1327	1237				
IRL	LL1	NONE	landings		800				24199		620	146	3625	
IRL	TR1	NONE	landings	381119	157955	87263	84550	141442	73625	60348	73585	56161	127170	174540
IRL	TR2	CPART13A	landings							98492	115391	392685	1205066	783550
IRL	TR2	NONE	landings	1242769	1386883	1475114	1452830	1583605	1300696	733216	673091	445123	34019	
IRL	TR3	NONE	landings	900	90	3305	960		436			179	634	381
NED	BT2	NONE	landings			5884								
NED	TR1	NONE	landings						442					734
NIR	GN1	NONE	landings		222									
NIR	TR1	CPART13A	landings											30993.97
NIR	TR1	CPART13B	landings							29532	47406	25968	28260	
NIR	TR1	CPART13C	landings							364594	306824	147347	12091	7276
NIR	TR1	NONE	landings	2055358	1162035	872476	785815	343025	498488					
NIR	TR2	CPART13A	landings										240258	2788701
NIR	TR2	CPART13B	landings							235743	1450621	1820787	2225228	
NIR	TR2	CPART13C	landings							2895541	1336192	863528	213809	
NIR	TR2	NONE	landings	3395323	3138292	3213416	2959511	3143032	3326397					
SCO	LL1	NONE	landings	3247										2610
SCO	TR1	CPART13C	landings								1273	407	13504	2588.13
SCO	TR1	NONE	landings	92514	32104	3889	3104							
SCO	TR2	CPART13B	landings							23350	17981	42035	82657	
SCO	TR2	CPART13C	landings							7569		1713	28113	90783.54
SCO	TR2	NONE	landings	44656	93770	34415	7435	16808	21995					
Sum				11230316	8851257	8836202	7551800	7267682	6569560	5524500	5145714	4973759	5250888	4575290

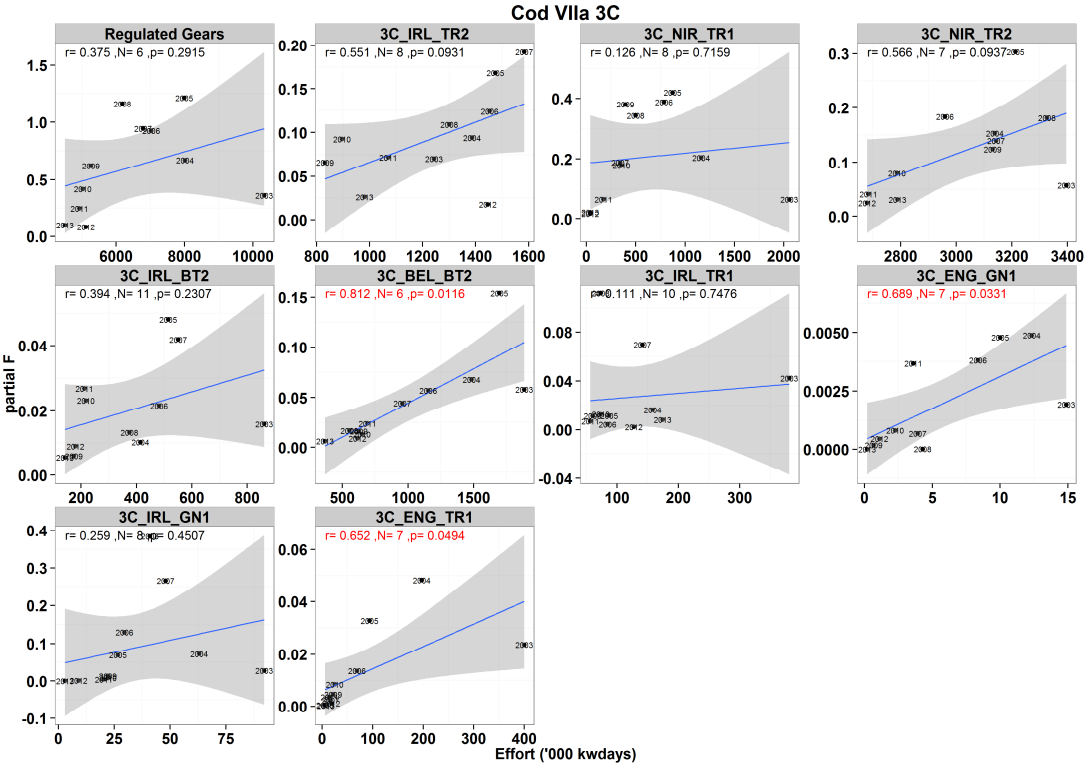


Fig. 5.5.9.1 Irish Sea cod. Partial fishing mortality (based on harvest rate estimates, landings only) over effort (kWd) in area 3c of major fisheries, 2003-2012. R = Pearson's coefficient of correlation, p value from two tailed to quantify the statistical significance (≤0.05). Note that the fisheries are not separated by special conditions.

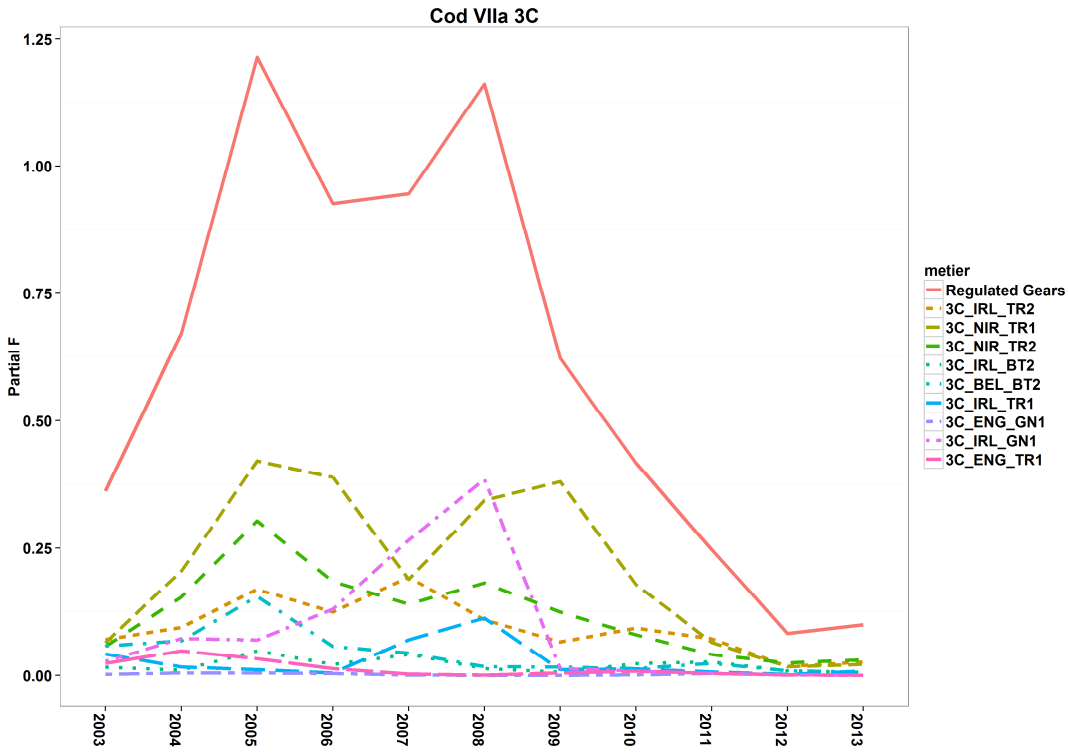


Fig. 5.5.9.2 Irish Sea cod. Partial F landings of major fisheries, 2003-2013.

5.5.10 ToR 8 Comparative analyses between trends in fishing mortality and fishing effort by Member State and fisheries and the cod plan (R (EC) No 1342/2008) provisions, in particular with regard to Article 13

STECF EWG 14-06 is unable to conduct the requested analyses due to data deficiencies, in particular the lack of discard data.

5.6 Celtic Sea effort regime evaluation for fisheries which would be affected by the extension of the cod management plan

5.6.1 ToR 1.a Fishing effort in kWdays, GTdays and number of vessels by area, Member state and fisheries

While there is no effort regulation in the Celtic Sea at present, the analyses below consider the same gear and mesh categories as used in the cod plan management plan (Council Regulation No. 1342/2008). Table 5.6.1 lists the trends in effort by gear and mesh categories by country in kW*days. Information on GT*days at sea and the number of vessels active in Celtic sea are not presented in this report but are available on the JRC website: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1406

The following sections are subdivided into the whole Celtic Sea, the ICES sub-divisions 7bcefghjk (Cel1) and the subset of ICES subdivision 7gh (Cel2).

STECF EWG 14-06 notes that Spanish data has not been provided for periods before 2012; as such the time series of effort and catch is incomplete. The inclusion of Spanish data for 2012-2013 mainly affects fisheries with Long-lines (LL1), otter trawl and seines (TR1, TR2) and to a lesser extent Gillnets (GN1), and predominately in the wider Celtic Sea (7bcefghjk (Cel1), with only small amounts of effort in the sub-set divisions 7fg (Cel2).

5.6.1.1 ICES sub-divisions 7bcefghjk (Cel1)

Table 5.6.1.1.1 show fishing effort (kw days at sea) by Country, Gear type and Special condition (as defined for the cod management plan) for ICES sub-divisions 7bcefghjk between 2004 and 2013. In 2013, the predominated fisheries were the TR1, TR2 and pelagic trawlers, with 24%, 18% and 17% of the total effort, respectively. The countries that contributed with most the effort were France, Ireland and England and Wales. Between 2004/06 and 2013, the nominal effort (kW*days-at-sea) in the Celtic Sea remained relatively stable. TR2 effort between 2004/06 and 2013 decreased 25%, but it showed a 3% increase in relation to 2012. In contrast, TR1 effort increased 30% between 2004/06 and 2013 and in relation to 2012 increased 6%. The countries that contributed for this increase were France and Ireland.

Beam trawling in the Celtic Sea is mostly carried out by BT2 (BT1 is negligible). Between 2004/06 and 2013 the BT2 effort decreased 35%. The effort from this gear remained constant in the last 5 years, accounting for 10% of the Celtic Sea effort.

The pelagic trawlers are the unregulated gear with highest effort in Cel1. It showed a 32% increase between 2004/06 and 2013 and 8% increase in relation to 2012.

Table 5.6.1.1.1 Trend in effort (kW*days at sea), according to cod plan gear definition and Member State, 2003-2013. Note, data for Celtic Sea 7bcefghjk (Cel1)

REG.AREA.COD	REG.GEAR.COD	SPECON	COUNTRY	VESSEL_LENGTH	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
7BCEFGHJK	BEAM	NONE	BEL	O15M						38953	70493	68474	51436	68246
7BCEFGHJK	BEAM	NONE	ENG	O10T15M	232	654						641	820	216
7BCEFGHJK	BEAM	NONE	ENG	O15M	1388	16341	12221	6031	884	2750	6993	5419	767	4634
7BCEFGHJK	BEAM	NONE	FRA	O10T15M		52646					1461	441	221	
7BCEFGHJK	BEAM	NONE	FRA	O15M	5940		1776							
7BCEFGHJK	BEAM	NONE	GBJ	O15M	1476									
7BCEFGHJK	BEAM	NONE	IRL	O15M	700722	5372								
7BCEFGHJK	BT1	NONE	BEL	O15M					1766					5754
7BCEFGHJK	BT1	NONE	ENG	O15M	52079									
7BCEFGHJK	BT1	NONE	FRA	O10T15M									159	
7BCEFGHJK	BT1	NONE	IRL	O15M										
7BCEFGHJK	BT2	NONE	BEL	O15M	4568918	3996701	3246205	3351614	2285026	1932211	2392748	2698681	3206396	3133707
7BCEFGHJK	BT2	NONE	ENG	O10T15M	72927	57373	53413	68457	70383	39504	57209	50614	70693	58233
7BCEFGHJK	BT2	NONE	ENG	O15M	5623896	5626763	5225546	4943815	4253780	3822565	3678346	3831714	3657607	3625273
7BCEFGHJK	BT2	NONE	FRA	O10T15M	27252	19355	99790	130720	55970	48196	109999	117351	68844	38871
7BCEFGHJK	BT2	NONE	FRA	O15M	290521	244545	206042	189856	90473	90473	196958	87754	62709	22599
7BCEFGHJK	BT2	NONE	GBJ	O15M	365302	202229								
7BCEFGHJK	BT2	NONE	IRL	O10T15M				187						
7BCEFGHJK	BT2	NONE	IRL	O15M	2331454	2969538	2079409	1767309	1020052	916246	948287	879763	1090097	1127501
7BCEFGHJK	BT2	NONE	NED	O15M							1467		2572	
7BCEFGHJK	BT2	NONE	SCO	O15M				3666		1396				
7BCEFGHJK	DEM_SEINE	NONE	FRA	O15M							19311			
7BCEFGHJK	DEM_SEINE	NONE	IRL	O15M	92689	18279			20910					
7BCEFGHJK	DREDGE	NONE	BEL	O15M					23028	72828	68186	35748	91356	2362
7BCEFGHJK	DREDGE	NONE	ENG	O10T15M	382001	553035	554194	492392	317471	450701	478773	572404	590166	664021
7BCEFGHJK	DREDGE	NONE	ENG	O15M	764430	891393	921527	921550	595747	700967	869100	1091645	1226928	1125100
7BCEFGHJK	DREDGE	NONE	FRA	O10T15M	2954269	2755241	3279571	3330398	2518083	2478802	1680444	1676208	1594941	1452602
7BCEFGHJK	DREDGE	NONE	FRA	O15M	904367	644169	719978	852839	788184	788405	664555	540029	488812	359849
7BCEFGHJK	DREDGE	NONE	GBJ	O15M							440	440		
7BCEFGHJK	DREDGE	NONE	IOM	O10T15M					1689					
7BCEFGHJK	DREDGE	NONE	IOM	O15M			23622	1488						
7BCEFGHJK	DREDGE	NONE	IRL	O10T15M	16170	2686	5237	6625	19361	16193	23843	31788	18938	20209
7BCEFGHJK	DREDGE	NONE	IRL	O15M	775093	414693	55741	135371	117801	162441	167179	157570	168829	144945
7BCEFGHJK	DREDGE	NONE	NED	O15M	136772	198540	129990	174403	92329	196579	77210			
7BCEFGHJK	DREDGE	NONE	NIR	O15M										894
7BCEFGHJK	DREDGE	NONE	SCO	O10T15M		20295					8316			877
7BCEFGHJK	DREDGE	NONE	SCO	O15M	606523	820152	716849	509439	532987	545777	495326	162180	439796	548479
7BCEFGHJK	GN1	NONE	BEL	O15M					2700					
7BCEFGHJK	GN1	NONE	ENG	O10T15M	408264	321651	303347	273695	241386	272475	263607	257877	262748	217447
7BCEFGHJK	GN1	NONE	ENG	O15M	1801520	1361727	664922	710075	482738	367021	458224	360084	408130	510947
7BCEFGHJK	GN1	NONE	FRA	O10T15M	1015940	904288	951675	917344	704412	704349	442616	453543	453261	390440
7BCEFGHJK	GN1	NONE	FRA	O15M	1069302	1240069	996131	1258557	1535687	1535360	1791358	1589363	1834150	1781850
7BCEFGHJK	GN1	NONE	GBJ	O15M							716			
7BCEFGHJK	GN1	NONE	GER	O15M	452381	396914	32794	171880	229650	93910	114413	91953	105780	146074
7BCEFGHJK	GN1	NONE	IRL	O10T15M	74856	63650	82996	92300	115527	146889	122657	88310	112910	114355
7BCEFGHJK	GN1	NONE	IRL	O15M	812092	615141	448209	469433	417322	403203	400345	362955	393729	367117
7BCEFGHJK	GN1	NONE	NIR	O10T15M						2106	1701	1296	1539	1094
7BCEFGHJK	GN1	NONE	SCO	O15M	643185	498672	192066	193116	355719	437451	387259	463248	439892	435615
7BCEFGHJK	GN1	NONE	ESP	O15M									25441	79723
7BCEFGHJK	GT1	NONE	ENG	O10T15M	243	11051	7204	13030	17085	14082	2188	14617	11907	16716
7BCEFGHJK	GT1	NONE	ENG	O15M	40645	16189	63807	16867	20745	3249	13969	72025	105327	125077
7BCEFGHJK	GT1	NONE	FRA	O10T15M	613504	763828	906651	1057950	662533	662382	493742	505116	476564	467931
7BCEFGHJK	GT1	NONE	FRA	O15M	358319	438016	465337	471663	381102	381102	498932	494870	460213	395258
7BCEFGHJK	GT1	NONE	IRL	O10T15M			6673	18759	21940	29379	30733	27980	29331	22278
7BCEFGHJK	GT1	NONE	IRL	O15M	172	16260	13550	6624	22125	7800	35672	23000	49028	15628
7BCEFGHJK	GT1	NONE	SCO	O15M	13362									
7BCEFGHJK	LL1	NONE	ENG	O10T15M	64003	57687	69608	81526	63299	44113	52964	51934	36152	42395
7BCEFGHJK	LL1	NONE	ENG	O15M	276751	265897	405536	575325	138810	4194	6800	3781		224301
7BCEFGHJK	LL1	NONE	FRA	O10T15M	153667	198527	350334	313997	139114	139114	170925	133564	112422	136385
7BCEFGHJK	LL1	NONE	FRA	O15M	184636	206807	360284	410608	336703	336703	382978	363457	643074	1306528
7BCEFGHJK	LL1	NONE	IRL	O10T15M		4074	1265	9962	16325	26309	21174	14444	22094	12400
7BCEFGHJK	LL1	NONE	IRL	O15M	3600	68722		46022	7281	2856	13030	3193	27100	2208
7BCEFGHJK	LL1	NONE	POR	O15M										
7BCEFGHJK	LL1	NONE	SCO	O10T15M		221								
7BCEFGHJK	LL1	NONE	SCO	O15M	6160	50975	249936	257928	811319	194403	261208	147510	415740	320452
7BCEFGHJK	LL1	NONE	ESP	O10T15M									574	8444
7BCEFGHJK	LL1	NONE	ESP	O15M									2554892	2690480
7BCEFGHJK	NONE	NONE	FRA	O10T15M	33746	76396	41748	6979	16784	16784		45498		
7BCEFGHJK	NONE	NONE	FRA	O15M		327	858	5495	5849	5849		8828		
7BCEFGHJK	NONE	NONE	IRL	O10T15M				383	275		52		64	986
7BCEFGHJK	NONE	NONE	IRL	O15M									844723	375153
7BCEFGHJK	NONE	NONE	SCO	O15M										3064
7BCEFGHJK	NONE	NONE	ESP	O15M									39856	

Celtic Sea 7bcefghjk (Cel1) continued

REG.AREA.COD	REG.GEAR.COD	SPECON	COUNTRY	VESSEL_LENGTH	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
7BCEFGHJK	OTTER	NONE	BEL	O15M										
7BCEFGHJK	OTTER	NONE	DEN	O15M	197431	77968	121909	77502	54619	161809				
7BCEFGHJK	OTTER	NONE	ENG	O10T15M	2308	39153	5023	39319	2922	24642	18573	26944	22177	15950
7BCEFGHJK	OTTER	NONE	ENG	O15M	110395	224730	82807	35121	61169	41458	243826	78176	484890	6152
7BCEFGHJK	OTTER	NONE	FRA	O10T15M	245014	357035	187430	132530	72340	71584	66696	78561	44834	58490
7BCEFGHJK	OTTER	NONE	FRA	O15M	120842	176987	64322	122042	28194	28194	136817	75075	58562	163283
7BCEFGHJK	OTTER	NONE	GBJ	O15M									220	
7BCEFGHJK	OTTER	NONE	IRL	O10T15M	103219	4119	2100		240	145		828	425	397
7BCEFGHJK	OTTER	NONE	IRL	O15M	1014106	158922	14130	8602	24074	3425	14674	51316	9476	560
7BCEFGHJK	OTTER	NONE	NED	O15M										
7BCEFGHJK	OTTER	NONE	SCO	O10T15M		1490				4470				
7BCEFGHJK	OTTER	NONE	SCO	O15M	106141	333853	25058	22830	64600	97476	453991	101950	202535	333313
7BCEFGHJK	OTTER	NONE	ESP	O15M									35073	2645
7BCEFGHJK	PEL_SEINE	NONE	ENG	O10T15M								402		9997
7BCEFGHJK	PEL_SEINE	NONE	ENG	O15M							6750			
7BCEFGHJK	PEL_SEINE	NONE	FRA	O10T15M	87549	60693	69936	38525	50446	50446	58203	61033	85960	86280
7BCEFGHJK	PEL_SEINE	NONE	FRA	O15M	106304	126726	228685	169325	124836	124521	259720	281078	411804	519749
7BCEFGHJK	PEL_SEINE	NONE	IRL	O10T15M										
7BCEFGHJK	PEL_SEINE	NONE	IRL	O15M	37748	8338				85				
7BCEFGHJK	PEL_SEINE	NONE	NIR	O15M	123386	123386								
7BCEFGHJK	PEL_SEINE	NONE	SCO	O15M							36147	7695		
7BCEFGHJK	PEL_SEINE	NONE	ESP	O15M									7714	4797
7BCEFGHJK	PEL_TRAWL	NONE	DEN	O15M	285933	529574	461159	937210	350859	692215	2183860	615653	1188791	1029987
7BCEFGHJK	PEL_TRAWL	NONE	ENG	O10T15M	19022	13409	21430	55665	83542	76419	81105	65577	53907	66717
7BCEFGHJK	PEL_TRAWL	NONE	ENG	O15M	909490	593944	1024722	1032729	1239855	1212908	1459339	1168163	983157	558581
7BCEFGHJK	PEL_TRAWL	NONE	FRA	O10T15M	21456	12171	9745	73230	18571	18571	53128	35608	35744	16533
7BCEFGHJK	PEL_TRAWL	NONE	FRA	O15M	1539255	1496366	1487064	1660738	861162	857922	1827724	1426415	1715054	1739085
7BCEFGHJK	PEL_TRAWL	NONE	GBG	O10T15M				201		191				
7BCEFGHJK	PEL_TRAWL	NONE	GBJ	O15M								385		
7BCEFGHJK	PEL_TRAWL	NONE	GER	O15M	1236846	936424	856734	962635	1191573	1095622	1863980	1718554	1637554	1625536
7BCEFGHJK	PEL_TRAWL	NONE	IRL	O10T15M	2370			1627	813	8803	2164	7323	28702	19916
7BCEFGHJK	PEL_TRAWL	NONE	IRL	O15M	1576831	1459330	1311817	1987134	2271355	3567806	4268273	2312966	3770799	3503421
7BCEFGHJK	PEL_TRAWL	NONE	LIT	O40M						246000		601600	60800	
7BCEFGHJK	PEL_TRAWL	NONE	NED	O15M	5212064	4726876	4683381	4252343	5963606	4646318	5976389	4137665	3749935	5737195
7BCEFGHJK	PEL_TRAWL	NONE	NIR	O15M	45931	52854	25667	51430	14170	34520	15640	14905	123142	61895
7BCEFGHJK	PEL_TRAWL	NONE	SCO	O10T15M	5066	1341	596			894				
7BCEFGHJK	PEL_TRAWL	NONE	SCO	O15M	1092027	1092313	310332	927221	1033393	803582	1099186	105981	195698	239380
7BCEFGHJK	POTS	NONE	ENG	O10T15M	854630	944496	758847	781807	797875	829660	876436	892495	780062	776272
7BCEFGHJK	POTS	NONE	ENG	O15M	420885	363252	361554	395238	488690	522285	505893	483962	377727	430591
7BCEFGHJK	POTS	NONE	FRA	O10T15M	1768450	1751646	2194275	1912615	417846	417846	1034732	1251441	1358973	1374137
7BCEFGHJK	POTS	NONE	FRA	O15M	310610	331470	383133	367272	147387	147387	372225	385966	414227	358975
7BCEFGHJK	POTS	NONE	GBG	O10T15M					112		6632		3805	42298
7BCEFGHJK	POTS	NONE	GBG	O15M	75868	56398	39402	67026	39092	54645	53544	55728	46024	42381
7BCEFGHJK	POTS	NONE	GBJ	O15M	3772		19963		34730	11426				
7BCEFGHJK	POTS	NONE	GER	O15M	22932	67473	37763	49735	33957	45423	41460	63464	23675	21543
7BCEFGHJK	POTS	NONE	IOM	O15M						9840		25256	82000	54448
7BCEFGHJK	POTS	NONE	IRL	O10T15M	110768	147064	159380	353648	293311	291359	353204	297733	299145	292181
7BCEFGHJK	POTS	NONE	IRL	O15M	10262	37509	31626	17494	9423	26437	33333	18642	8604	1231
7BCEFGHJK	POTS	NONE	NIR	O10T15M							7833			
7BCEFGHJK	POTS	NONE	SCO	O10T15M								3870		253
7BCEFGHJK	POTS	NONE	SCO	O15M					15155					

Celtic Sea 7bcefghjk (Cel1) continued

REG.AREA.COD	REG.GEAR.COD	SPECON	COUNTRY	VESSEL_LENGTH	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
7BCEFGHJK	TR1	NONE	BEL	O15M										1326
7BCEFGHJK	TR1	NONE	ENG	O10T15M	24379	12250	18271	30261	68970	105539	173102	439093	315786	289381
7BCEFGHJK	TR1	NONE	ENG	O15M	2237575	1791918	2209095	2274588	1600379	1263283	1368151	1641154	1077547	1596310
7BCEFGHJK	TR1	NONE	FRA	O10T15M	21245	24258	28074	19271	2627	2627	6974	9027	2514	4170
7BCEFGHJK	TR1	NONE	FRA	O15M	7767596	7342415	7853011	7400986	6311661	6287869	9424263	10044412	9927729	10373174
7BCEFGHJK	TR1	NONE	GBG	O10T15M				328	402					
7BCEFGHJK	TR1	NONE	GBJ	O15M									660	
7BCEFGHJK	TR1	NONE	IRL	O10T15M		4595	32698	12161	18276	26323	67478	120505	141117	87614
7BCEFGHJK	TR1	NONE	IRL	O15M	5080624	4806489	3850598	4019448	3850262	4152808	4428522	4290102	4200489	4811046
7BCEFGHJK	TR1	NONE	NED	O15M							6044	221	4442	1500
7BCEFGHJK	TR1	NONE	NIR	O15M		716	5176		1141	1805	16616	24770	42944	58252
7BCEFGHJK	TR1	NONE	SCO	O10T15M						36953	58669	6556	762	
7BCEFGHJK	TR1	NONE	SCO	O15M	879428	1084677	779453	681392	835556	869444	939069	742392	764935	287962
7BCEFGHJK	TR1	NONE	ESP	O15M									2211273	2366764
7BCEFGHJK	TR2	NONE	BEL	O15M	119327	188914	424630	464699	467476	468989	422826	322422	468384	396905
7BCEFGHJK	TR2	NONE	ENG	O10T15M	1465978	1433817	1480541	1518102	1487671	1508410	1417313	1072092	1117170	1091990
7BCEFGHJK	TR2	NONE	ENG	O15M	793106	748269	545935	546165	188851	219920	270932	277086	199744	228632
7BCEFGHJK	TR2	NONE	FRA	O10T15M	1170583	934323	1811990	2322695	1359817	1332591	1377589	1450200	1377944	1155892
7BCEFGHJK	TR2	NONE	FRA	O15M	9749701	10606401	9086047	8463099	5978693	5961053	5517774	4618154	4640702	5833783
7BCEFGHJK	TR2	NONE	GBG	O10T15M		730	6042	11065	5203	3090	7854	2298	11868	1108
7BCEFGHJK	TR2	NONE	GBG	O15M			336							
7BCEFGHJK	TR2	NONE	GBJ	O15M		6745	19360	30580	25740	31020	37620	41195	12760	33660
7BCEFGHJK	TR2	NONE	IRL	O10T15M	257022	350469	334422	459059	451136	535137	532232	412184	498594	465370
7BCEFGHJK	TR2	NONE	IRL	O15M	5224000	6198534	5446878	5597666	4158601	2949734	3573429	3347927	3777676	3873553
7BCEFGHJK	TR2	NONE	NED	O15M	64393	108566	162551	113851	90839	216240	252472	259559	150099	130151
7BCEFGHJK	TR2	NONE	NIR	O10T15M						1832	1832			
7BCEFGHJK	TR2	NONE	NIR	O15M	53672	72432	42938	20658	128847	151565	144625	6852	31350	62129
7BCEFGHJK	TR2	NONE	SCO	O10T15M	76992	66156	5364	17582	162	9536	17322	20264		
7BCEFGHJK	TR2	NONE	SCO	O15M	367031	352869	382627	350470	506435	487733	439290	529514	322248	310884
7BCEFGHJK	TR2	NONE	ESP	O15M									1499154	1082649
7BCEFGHJK	TR3	NONE	DEN	O15M	15575									
7BCEFGHJK	TR3	NONE	ENG	O10T15M	559	220	1505	4986	7072	10318	2204	4242	13828	3460
7BCEFGHJK	TR3	NONE	ENG	O15M	432	2984		660	880					
7BCEFGHJK	TR3	NONE	FRA	O10T15M	5840	14923	17955	2179	7931	7931	22410	21286	14772	6499
7BCEFGHJK	TR3	NONE	FRA	O15M	1146		3516	2304	1596	1596	32619	33180	7492	429
7BCEFGHJK	TR3	NONE	IRL	O10T15M				403	906	4910	1355	97	2126	1542
7BCEFGHJK	TR3	NONE	IRL	O15M	8964	340	10012	3573	11035	12724	8249	21567	18025	936
7BCEFGHJK	TR3	NONE	SCO	O10T15M	1192	4917				894				
7BCEFGHJK	TR3	NONE	SCO	O15M					5499				26807	
7BCEFGHJK	TR3	NONE	ESP	O15M									1440	

Effort contributions by vessels operating in the entire Celtic Sea 7bcefghjk (Cel1) from different nations are shown in Figure 5.6.1.1.1. In terms of kW*days, in 2013, France contributed 37%, Ireland 20%, England and Wales 15%, Spain 8%, the Netherlands 8%, Belgium 5%, Scotland 3%, Germany 2% and Denmark 1% (2013).

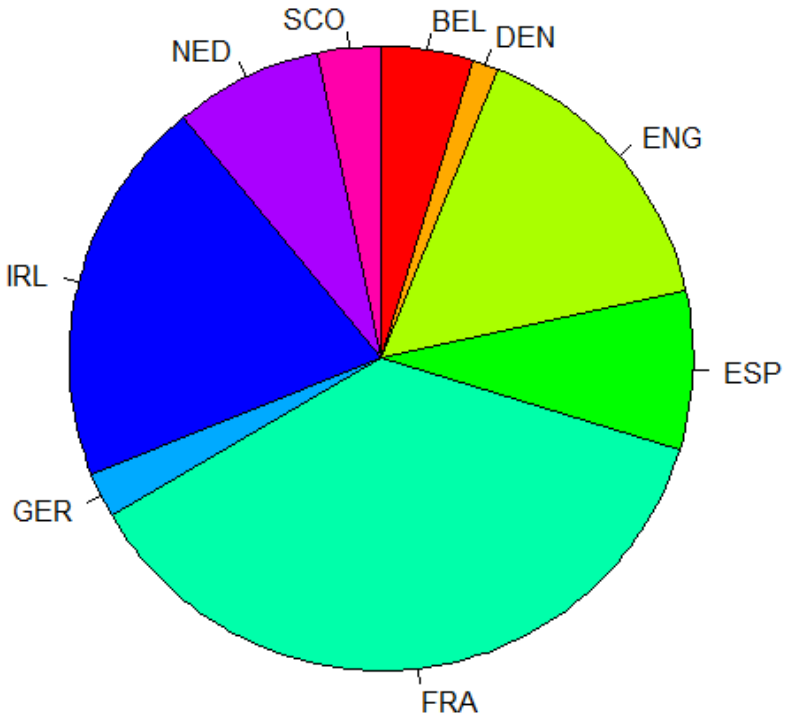


Figure 5.6.1.1.1. Contribution of each country (countries fishing less fishing less than 1% of the total catches were excluded from the figure) to the total effort (kW days at sea) in the Celtic Sea (7bcefghjk) in 2013 (Cel1).

Figure 5.6.1.1.2 shows the proportion contribution of defined gear groups to the total effort in 2013. It shows that the two main gear categories regulated under the cod plan are TR1 and TR2. TR1 contributes 26% to the reported fishing effort in 2013, TR2 19% and BT2 10%. The gear classed as "non-regulated" are dominated by pelagic trawls (19%) and in to a lesser extend dredges (6%) and pots (4%).

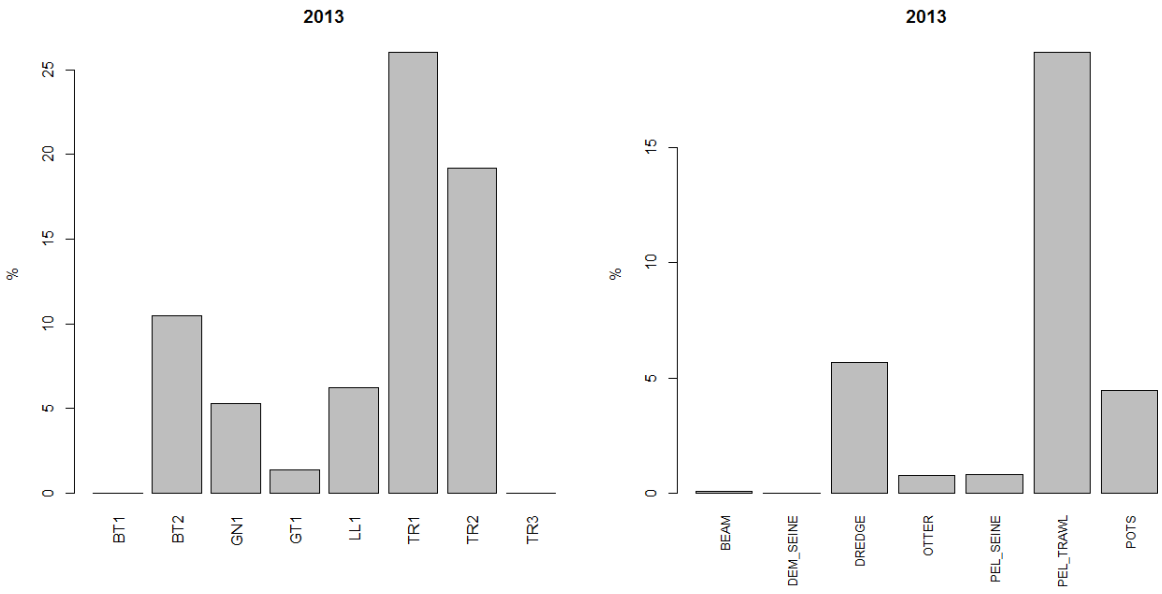


Figure 5.6.1.1.2. Contribution of each gear category to the total effort (kWdays) in the Celtic Sea (ICES Divisions VIIbc,e-k) in 2013.

The fishing effort in kW days at sea of “unregulated” gears accounts for about 31% of the total effort in the Celtic Sea. Figure 5.6.1.1.3 shows fishing effort by gear type for gear defined as unregulated under the cod management plan (left) and defined as regulated (right).

For “unregulated” gears most of the effort is Dutch, Irish, French, and German pelagic trawl fisheries, with a recent (since 2009) increase of Danish and Irish pelagic boats fishing for boarfish in the Celtic Sea. There was an increase in fishing effort by unregulated gears in 2010, mainly due to an increase of the pelagic trawl effort by the Danish vessels that dropped in 2011. Between 2011 and 2013 there was a slight increase again of the unregulated effort.

For “regulated” gears, over the period 2003-2009 there was a decline in overall effort but effort has been increasing slightly since, due to a slight increase in the TR effort. The increasing trend continued in 2013. All the other regulated gears: BT, LL1, GT1, GN1 remained relatively stable in relation to previous years.

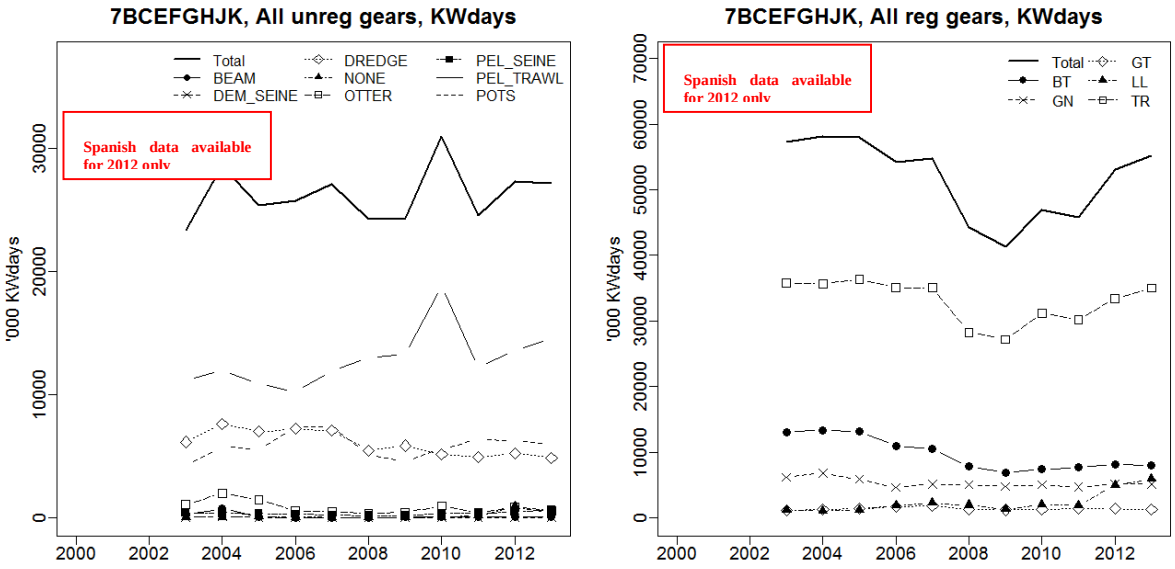


Fig. 5.6.1.1.3. Trend in nominal effort (kW days at sea) for unregulated gears in the Celtic Sea, 2003-2013 (left) and gears as defined as regulated by the cod management plan (right).

Figures 5.6.1.1.4 show the recent trends in nominal effort for the various gear categories and mesh size in the Celtic Sea. The main demersal trawl gears operating in the Celtic sea are the TR1 and TR2 (TR3 is negligible). Between 2003 and 2009 there was a decrease in TR1 and TR2 effort. And between 2009 and 2013, the TR1 effort shows an accentuated increase (14%), the TR2 effort remained relatively stable.

The beam trawling it dominated by the BT2 effort (BT1 is negligible). The BT2 effort showed a steep decline between 2003 and 2009 and remained stable since then, with a slight increase until 2012 and in 2013 the BT2 effort had a minor decrease (1%) in relation to 2012. Between 2003 and 2013, the BT2 effort decreased 39%.

Figure 5.6.1.1.5 shows trends in effort by Gillnet (GN1), Trammel Net (GT1) and Longline (LL1) fisheries. The GT1 and GN1 effort has been relatively stable between 2003 and 2013. The increase in longline effort in 2012 and 2013 is related to the inclusion of Spanish data for these years.

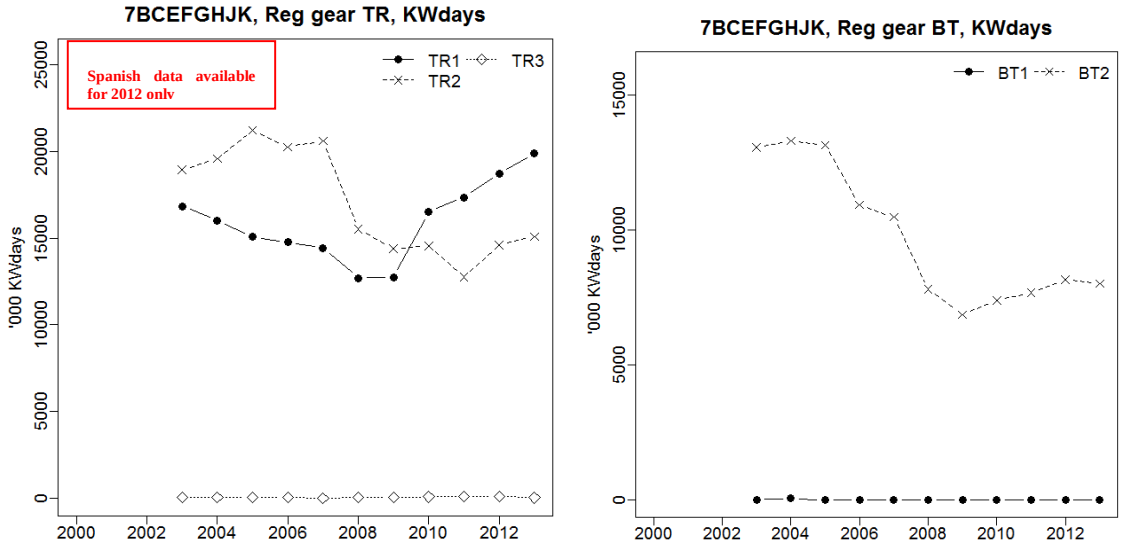


Fig. 5.6.1.1.4. Trend in nominal effort for demersal trawl (Regulated Gear TR1, TR2 and TR3; left) and beam trawl (Regulated Gear BT1, BT2; right) by mesh size range in the Celtic Sea (ICES Divisions VIIbc,e-k), 2003-2013.

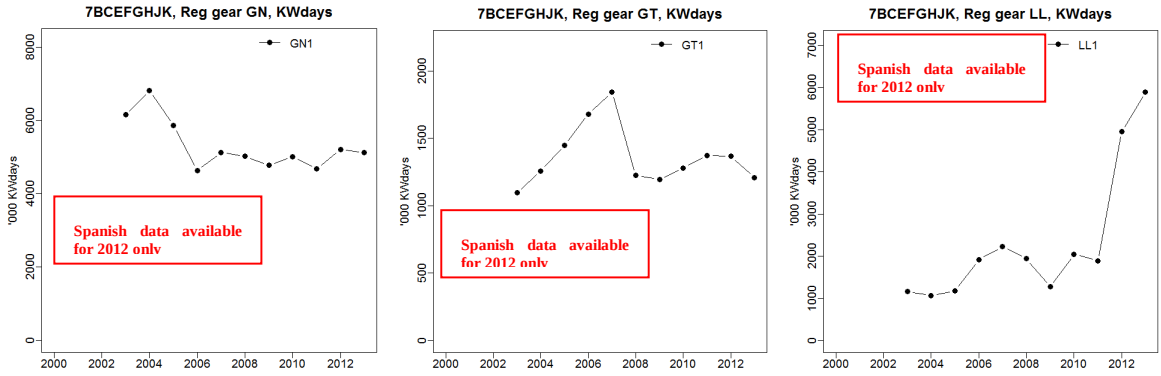


Fig. 5.6.1.1.5. Trend in nominal effort for Regulated Gear GT, GN1, LL1 in the Celtic Sea (ICES Divisions VIIbc,e-k), 2003-2013.

5.6.1.2 ICES sub-divisions 7fg (Cel2)

Table 5.6.1.2.1 shows trends in effort in ICES sub-divisions 7fg by gear type and Member State. Trends broadly reflect those from the wider Celtic Sea area (Section 5.6.1.1 above), with the effort of the main gears, BT2, TR1 and TR2 in 2013, remaining relatively stable in relation to 2012. In 2013 TR1 effort showed an increment of 11% in relation to 2012, keeping its increasing trend since 2008 and had a 60% increase since 2004/06. The countries which contributed most for this increase were France and Ireland. TR2 effort kept its decreasing trend since 2004/06 (-38%) and in relation to 2012 the TR2 effort declined 8%. Between 2004/06 and 2013 BT2 effort decreased 27% and increased 3% in relation to 2012.

Table 5.6.1.2.1 Trend in effort (kW*days at sea), according to cod plan gear definition and Member State, 2000-2013. Note, data are for Celtic Sea subdivisions 7fg (Cel2).

REG.AREA.COD	REG.GEAR.COD	SPECON	COUNTRY	VESSEL_LENGTH	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
7FG	BEAM	NONE	BEL	O15M						6709	9597	16023	8536	19086
7FG	BEAM	NONE	ENG	O10T15M		214								
7FG	BEAM	NONE	ENG	O15M	330	3604	369		884					407
7FG	BEAM	NONE	IRL	O15M	625594	5372								
7FG	BT1	NONE	BEL	O15M										4795
7FG	BT1	NONE	ENG	O15M	8787									
7FG	BT1	NONE	IRL	O15M										
7FG	BT2	NONE	BEL	O15M	3744619	3121706	2534199	2448583	1651116	1570823	1987520	2163164	2636349	2698782
7FG	BT2	NONE	ENG	O10T15M	42075	9779		676	7691	7891	11403	13165	16911	7625
7FG	BT2	NONE	ENG	O15M	970762	775553	645496	569682	403865	408146	392279	265057	472194	531699
7FG	BT2	NONE	FRA	O10T15M		2200					1665	4131	176	420
7FG	BT2	NONE	FRA	O15M			15965				486			
7FG	BT2	NONE	GBJ	O15M	145409	46378								
7FG	BT2	NONE	IRL	O10T15M				187						
7FG	BT2	NONE	IRL	O15M	1784027	2398012	1779651	1544366	960802	840028	910631	863511	1080147	1109423
7FG	BT2	NONE	NED	O15M									1105	
7FG	DEM_SEINE	NONE	IRL	O15M	76406	7498								
7FG	DREDGE	NONE	BEL	O15M					10708	4429	5958	11254	10592	
7FG	DREDGE	NONE	ENG	O10T15M	1934	1740	592	2426	8788	3453	34465	51708	29627	58188
7FG	DREDGE	NONE	ENG	O15M	10671	16336	5658	1458	6034	884	1460	5704	38184	16474
7FG	DREDGE	NONE	FRA	O10T15M							1291	2083	1460	
7FG	DREDGE	NONE	FRA	O15M		750					1112	1621	294	
7FG	DREDGE	NONE	IOM	O10T15M					911					
7FG	DREDGE	NONE	IOM	O15M			3720	372						
7FG	DREDGE	NONE	IRL	O10T15M					6200	179	1543			
7FG	DREDGE	NONE	IRL	O15M	161117	162396	37161	111079	109674	157541	166199	156686	167257	140229
7FG	DREDGE	NONE	NED	O15M			43017	3728	4725	1628				
7FG	DREDGE	NONE	NIR	O15M										894
7FG	DREDGE	NONE	SCO	O10T15M							6930			877
7FG	DREDGE	NONE	SCO	O15M	2000	16246	39971	13036	21843	56181	90166	7184	906	64182
7FG	GN1	NONE	BEL	O15M					1800					
7FG	GN1	NONE	ENG	O10T15M	166518	116219	127376	112183	85832	88748	101641	126513	127610	97154
7FG	GN1	NONE	ENG	O15M	347111	323813	278118	265198	223518	171258	184084	194244	189204	212506
7FG	GN1	NONE	FRA	O10T15M								200		1624
7FG	GN1	NONE	FRA	O15M	37833	18804		5908	441	441	4199	6096	5836	8113
7FG	GN1	NONE	GBJ	O15M							716			
7FG	GN1	NONE	IRL	O10T15M	54249	44009	54520	48775	62188	86151	68034	54882	67727	81847
7FG	GN1	NONE	IRL	O15M	366145	271954	130182	184209	239806	159271	168595	138422	164940	132849
7FG	GN1	NONE	SCO	O15M	721	1337						2025		3277
7FG	GT1	NONE	ENG	O10T15M	243	4630	5447	5497	4186	9217	1538	8979	10356	8279
7FG	GT1	NONE	ENG	O15M	23676	4647	21344	12802	12273	2052	5572	33508	72324	69847
7FG	GT1	NONE	FRA	O10T15M	1458		7683				11645	8947	2892	4852
7FG	GT1	NONE	FRA	O15M	801	14256	20068	21032	19104	19104	7506	37761	11705	37782
7FG	GT1	NONE	IRL	O10T15M				4675	4720	7091	8434	10120	17272	9249
7FG	GT1	NONE	IRL	O15M				4968	7649	1104	13840	6348	18768	11040
7FG	LL1	NONE	ENG	O10T15M	3743	1093	703	2622	498	4673	3785	3719	610	3695
7FG	LL1	NONE	ENG	O15M	29331	43411	32066	11479	5879	215	828	909		
7FG	LL1	NONE	FRA	O10T15M									173	109
7FG	LL1	NONE	FRA	O15M		4745		552	883	883				8829
7FG	LL1	NONE	IRL	O10T15M				3583	4986	4137	2208	2935	2291	374
7FG	LL1	NONE	IRL	O15M		2167					2240			
7FG	LL1	NONE	SCO	O10T15M		221								
7FG	LL1	NONE	ESP	O15M									4592	

Celtic Sea 7fg (Cel2) Continued

REG.AREA.COD	REG.GEAR.COD	SPECON	COUNTRY	VESSEL_LENGTH	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
7FG	NONE	NONE	IRL	O10T15M				233	179					
7FG	NONE	NONE	IRL	O15M									169834	83739
7FG	OTTER	NONE	BEL	O15M										
7FG	OTTER	NONE	ENG	O10T15M	642	36523	4432	36302	1860	21806	15590	26191	20890	12832
7FG	OTTER	NONE	ENG	O15M		1850	1572	17152		6007	12232	4255	2220	833
7FG	OTTER	NONE	FRA	O10T15M							338			
7FG	OTTER	NONE	FRA	O15M	14904						14272	1966	3680	
7FG	OTTER	NONE	IRL	O10T15M	9912	894	2100		240	145				
7FG	OTTER	NONE	IRL	O15M	267713		615	619	1472	1500	8989	8214	2238	
7FG	OTTER	NONE	SCO	O10T15M						4470				
7FG	OTTER	NONE	SCO	O15M						798	4796			3413
7FG	OTTER	NONE	ESP	O15M									4244	
7FG	PEL_SEINE	NONE	ENG	O10T15M								179		446
7FG	PEL_SEINE	NONE	ENG	O15M							5062			
7FG	PEL_SEINE	NONE	FRA	O15M									84429	71073
7FG	PEL_SEINE	NONE	IRL	O10T15M										
7FG	PEL_SEINE	NONE	IRL	O15M	37539	8338								
7FG	PEL_SEINE	NONE	SCO	O15M								2430		
7FG	PEL_TRAWL	NONE	FRA	O10T15M							294			263
7FG	PEL_TRAWL	NONE	FRA	O15M	4097	4585	7331	1851			3310	4196	27786	751
7FG	PEL_TRAWL	NONE	GER	O15M						5299	8589			
7FG	PEL_TRAWL	NONE	IRL	O10T15M	2370			187	653	4301	336	5211	22795	8469
7FG	PEL_TRAWL	NONE	IRL	O15M	293567	119426	161226	152567	131130	195972	263987	458621	330812	341255
7FG	PEL_TRAWL	NONE	NED	O15M	115456	7210	4853	47101			3960		3960	40800
7FG	POTS	NONE	ENG	O10T15M	406212	458422	319320	366223	404291	426106	451778	399558	418635	403520
7FG	POTS	NONE	ENG	O15M	98951	94391	82850	115136	160299	171922	212593	218830	113590	93422
7FG	POTS	NONE	FRA	O10T15M							558	1398	453	
7FG	POTS	NONE	FRA	O15M	21435	30680	53838	38996	23492	23492	50447	62606	50721	21084
7FG	POTS	NONE	GBG	O15M				20910	16433	20888				
7FG	POTS	NONE	GBJ	O15M	3772				34730	11426				
7FG	POTS	NONE	IOM	O15M						9840		25256	63632	44936
7FG	POTS	NONE	IRL	O10T15M	733	9459	15246	28421	30421	28253	38506	39766	29813	23069
7FG	POTS	NONE	IRL	O15M	1044	1568				15774	30114	18642	8604	
7FG	POTS	NONE	NIR	O10T15M							7833			
7FG	POTS	NONE	SCO	O10T15M								3870		253
7FG	TR1	NONE	BEL	O15M										1105
7FG	TR1	NONE	ENG	O10T15M	4919	3621	7115	3761	4872	7425	15376	9544	7846	20368
7FG	TR1	NONE	ENG	O15M	117608	76471	79283	70737	96274	107589	147472	129164	212176	197532
7FG	TR1	NONE	FRA	O10T15M							330	1908		
7FG	TR1	NONE	FRA	O15M	3326622	3113639	2740592	2475013	2303217	2295080	3282997	2630843	2956038	3368695
7FG	TR1	NONE	IRL	O10T15M		1455	29926	11211	16349	13413	19267	36899	64237	55172
7FG	TR1	NONE	IRL	O15M	832656	855906	1022284	1382543	1632837	1965350	1855287	2203318	2328972	2660999
7FG	TR1	NONE	NIR	O15M		716	5176		1141	1805	16028	23389	42944	50494
7FG	TR1	NONE	SCO	O10T15M						745	894			
7FG	TR1	NONE	SCO	O15M	7701		9616	4479	12835	12332	86805	44476	83618	57382
7FG	TR1	NONE	ESP	O15M									127970	88345
7FG	TR2	NONE	BEL	O15M	110564	168754	400049	443057	434936	449108	376867	276627	356164	324453
7FG	TR2	NONE	ENG	O10T15M	154707	165360	257877	176637	225580	184298	201033	175504	172994	119732
7FG	TR2	NONE	ENG	O15M	80260	86357	50874	55815	33883	40429	79839	29505	23851	10638
7FG	TR2	NONE	FRA	O10T15M					3250	3250	1302	489	732	214
7FG	TR2	NONE	FRA	O15M	593609	731407	287766	355358	227706	227706	72113	38972	34270	9089
7FG	TR2	NONE	IRL	O10T15M	132522	157952	196727	230785	221421	197978	194811	159901	192854	143276
7FG	TR2	NONE	IRL	O15M	2227910	3152039	2603114	2625295	2081110	1655034	1838178	1272473	1761311	1655771
7FG	TR2	NONE	NED	O15M										500
7FG	TR2	NONE	NIR	O10T15M						1832	1832			
7FG	TR2	NONE	NIR	O15M	52370	72432	42938	20658	124635	151079	144049	6852	31350	62129
7FG	TR2	NONE	SCO	O10T15M					162					
7FG	TR2	NONE	SCO	O15M	12285	4095	2828		2531	29426	3626	17933	9776	40826
7FG	TR2	NONE	ESP	O15M									1030	
7FG	TR3	NONE	ENG	O10T15M	373							1890		
7FG	TR3	NONE	ENG	O15M		1119								
7FG	TR3	NONE	FRA	O10T15M							212	1163	636	
7FG	TR3	NONE	FRA	O15M								1458		
7FG	TR3	NONE	IRL	O10T15M					324					75
7FG	TR3	NONE	IRL	O15M			720			1500		1498		

Figure 5.6.1.2.1 shows the contribution by different countries to overall effort in the smaller area, ICES sub-divisions VIIfg. Vessels from Belgium, France, Ireland and UK (E-W) operate in the Divisions VIIfg. In terms of kW*days, Ireland contributes to 42%, France 23%, Belgium 20%, England and Wales 12% and Northern Ireland, Scotland and Spain contributed with 1% (2013).

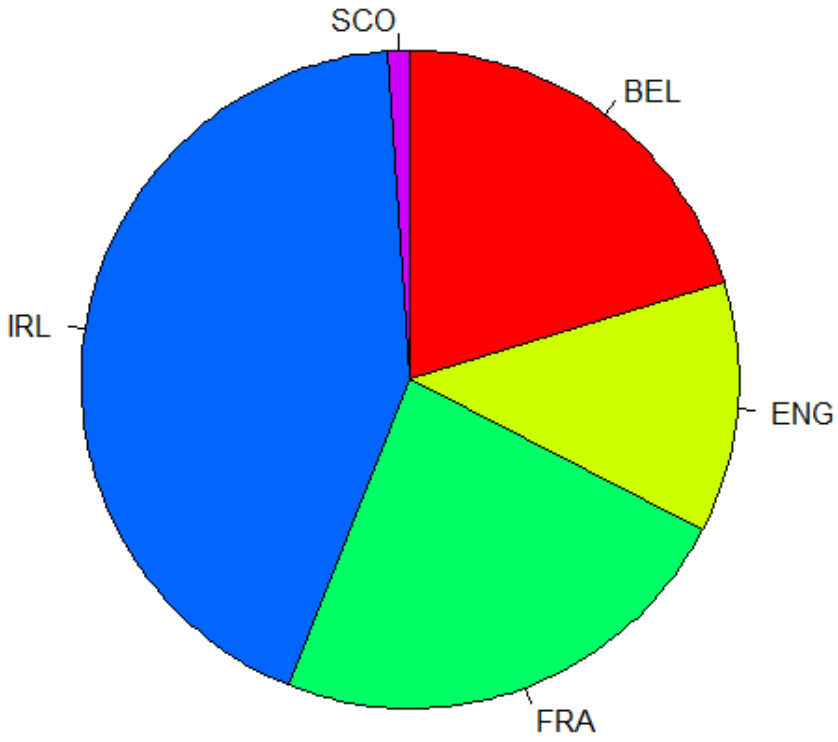


Figure 5.6.1.2.1. Contribution of each country (Countries fishing less fishing less than 1% of the total catches were excluded from the figure) to the total effort in the Divisions VIIfg (2013).

Figure 5.6.1.2.2 shows the proportion contribution of different gears to the total overall effort in 2013. The fisheries in this area are dominated by the TR1 (39%), BT2 (29%) and TR2 (16%) fisheries. The majority of effort (89%) is undertaken by gears defined as "regulated" by the cod management plan.

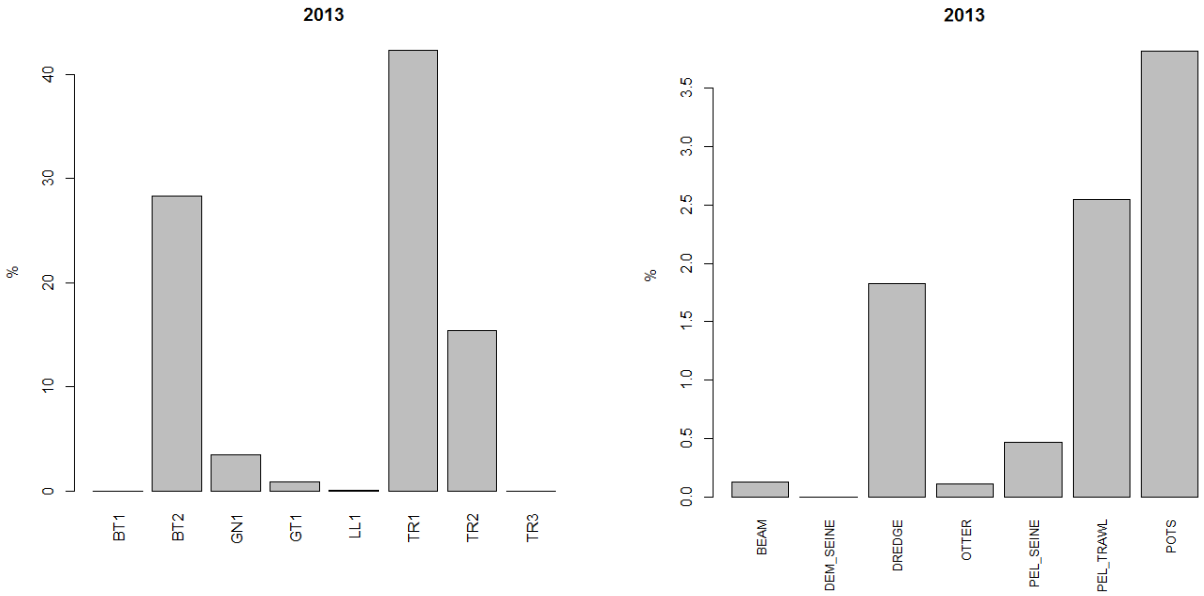


Figure 5.6.1.2.2. Contribution of each gear category to the total effort (kW*days) in the ICES Divisions VIIfg. Mean over 2003-2013. No Spanish data available until to 2012.

Figure 5.5.1.2.3 shows trends in effort by gears grouped into the classification of regulated (left) and unregulated (right) under the cod management plan. The effort in VIIfg followed the trends observed in VIIbc,e-k. The overall effort in VIIfg decreased between 2003 and 2013, however, in the last two years the effort showed an increase to levels similar to 2004/2005. This increase is mainly due to an increase in effort by the demersal trawlers (TR). The effort in unregulated gears has been increasing steadily since 2006 until 2012. In 2013 the unregulated gears effort showed a decrease, mainly due to the reduction of effort of pots.

Figure 5.6.1.2.4 (left) shows effort by otter trawl. Since 2007 there has been a shift in effort from the smaller mesh size in the demersal fishery (70-99 mm; TR2) to the larger mesh size in the demersal fishery (≥100 mm; TR1), with effort being relatively stable overall by the TR gear. In 2013, the increase effort trend for TR1 and decrease for TR2 remained. Figure 5.6.1.2.4 (right) shows effort by the beam trawl gear by mesh size. There has been a large decline in effort in the smaller mesh beam trawl gear (80-120 mm; BT2, the only beam trawl mesh category used in the area) since 2003, but in 2012 there was a significant increase in effort on 2011 (39%) and in 2013 BT2 showed a slight increase in the effort.

The GT1, GN1 and LL1 effort in VIIfg showed different trends from Cel1 area (VIIbc,e-k). There has been a decline in gillnet and longline effort in the area since 2003, however in 2013 the longline effort increased due to the inclusion of the Spanish data. The trammel net effort increased significantly between 2009 and 2013.

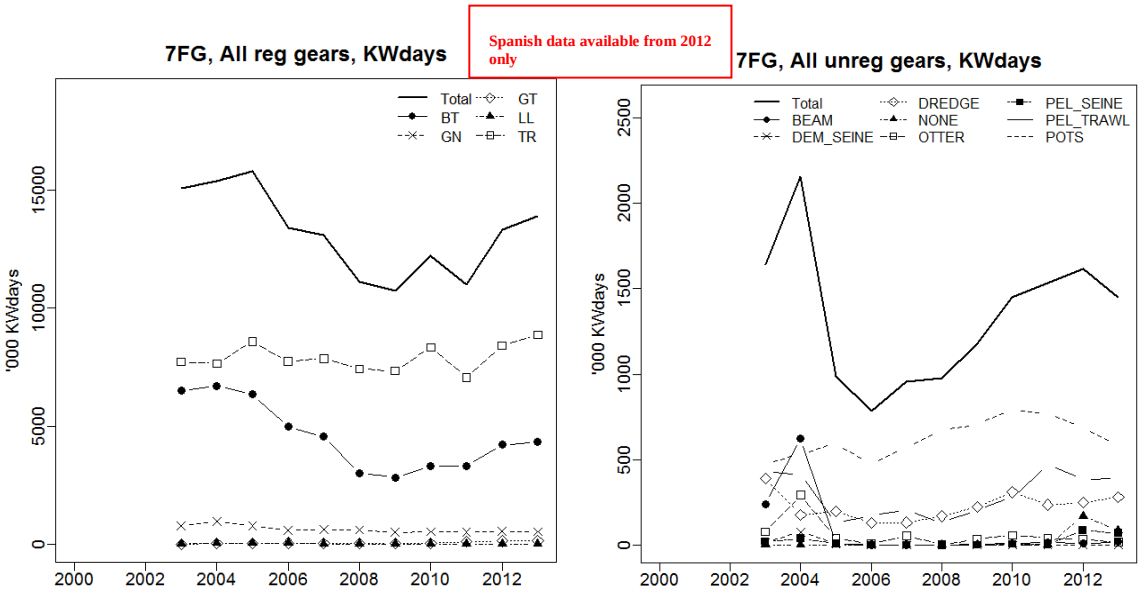


Fig. 5.6.1.2.3. Trend in nominal effort by gear types in the Celtic Sea (ICES Divisions VIIfg), 2003-2013. Spanish data available from 2012 only.

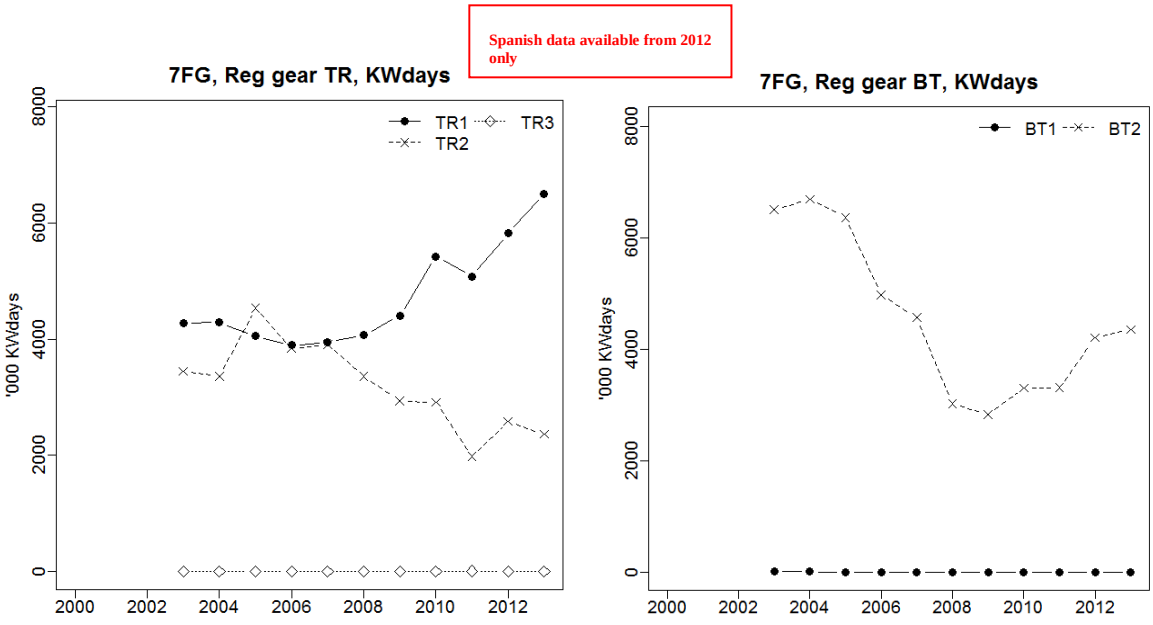


Fig. 5.6.1.2.4. Trend in nominal effort for demersal trawl (TR1, TR2 and TR3; left) and beam trawl by mesh size range (BT1, BT2; right) in the Celtic Sea (ICES Divisions VIIfg), 2003-2013. Spanish data available from 2012 only.

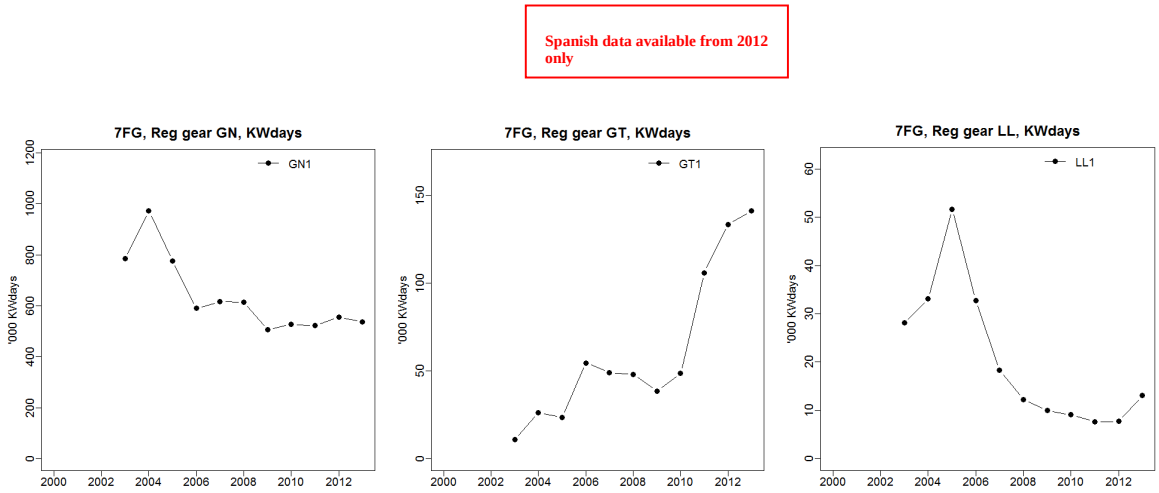


Fig. 5.6.1.2.5. Trend in nominal effort for static gears (Regulated Gear GT, GN1, LL1) in the Celtic Sea (ICES Divisions VIIfg), 2003-2013. Spanish data available from 2012 only.

5.6.2 ToR 1.b Catches (landings and discards) of cod in weight and numbers at age by area, Member State and fisheries

5.6.2.1 ICES sub-divisions 7bcefghjk (Cel1)

STECF EWG 14-13 presents the requested cod in weight by fisheries.

STECF EWG 14-13 notes that discard information is scarce and presents only landing values; though figures have been provided on catch where some discard information is available (Figures 5.6.3.1.1 – 2), this should be interpreted with care due to some key fisheries not having discard information. Table 5.6.2.1.2 presents discard rates alongside a discard coverage index for what information is available for gears catching cod in the wider Celtic Sea. As can be seen, in most cases the discard coverage index is either C (<33% of landings having discard information) or B (≥ 33% < 66%); only the relatively low cod catching gears BT2 and TR3 have > 66% of landings with discard samples (category A). It should be noted that the discard coverage index is only an indication of where a minimum one sample has been provided; therefore it should not necessarily be interpreted an indication of discard information quality, just that some information was available for fisheries using the gear.

Figures 5.6.3.1.1-2 show that landings and estimated discards of cod (where available) for the main gear in the Celtic Sea catching cod (TR1) have increased significantly since 2010, with 2012 landings double the landings in 2011. This reflects the particularly strong 2010 year class (the largest since 1987) entering the fishery (ICES, 2013).

Table 5.6.2.1.1 lists the cod landings by Member States and gears, 2003-2013. Cod landings by most countries and gears have increased in 2011 and 2012, reflecting the strong year class and increased quota available.

Table 5.6.2.1.1 Celtic Sea: Cod landings by Member States and gears, 2003-2013.

ANNEX	REG_AREA	COUNTRY	REG_GEAR	SPECIES	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
CEL1	7BCEFGHJK	BEL	BEAM	COD		0.111	0.217		0.093		0.1	0.068	0.453	0.46	0.095
CEL1	7BCEFGHJK	BEL	BT1	COD						0.335					0.034
CEL1	7BCEFGHJK	BEL	BT2	COD	124.07	147.502	179.323	91.836	92.296	55.547	34.832	37.585	86.957	226.596	158.735
CEL1	7BCEFGHJK	BEL	OTTER	COD	8.003										
CEL1	7BCEFGHJK	BEL	TR1	COD											1.279
CEL1	7BCEFGHJK	BEL	TR2	COD		2.725	4.699	9.77	14.57	8.967	14.188	14.014	35.434	61.463	41.78
CEL1	7BCEFGHJK	ENG	BEAM	COD	0.046		0.44	0.172		0.011	0.01	0.016	0.143	0.096	0.182
CEL1	7BCEFGHJK	ENG	BT1	COD		1.21									
CEL1	7BCEFGHJK	ENG	BT2	COD	103.027	85.24	99.455	91.818	111.669	71.749	67.308	65.637	98.898	165.862	114.514
CEL1	7BCEFGHJK	ENG	DREDGE	COD	0.035	0.062	0.067	0.091	0.099	0.04	0.096	0.224	0.27	0.086	0.336
CEL1	7BCEFGHJK	ENG	GN1	COD	86.212	88.136	96.699	126.667	123.851	71.273	82.489	54.902	72.298	134.114	153.672
CEL1	7BCEFGHJK	ENG	GT1	COD		0.003	1.146	1.545	2.293	1.53	0.692	0.699	2.313	9.63	10.761
CEL1	7BCEFGHJK	ENG	LL1	COD	6.021	0.042	2.677	2.978	0.72	0.062	0.04	0.117	0.419	0.093	0.681
CEL1	7BCEFGHJK	ENG	NONE	COD											0.104
CEL1	7BCEFGHJK	ENG	OTTER	COD	0.009	0.257	0.15	0.004	0.46	0.321	0.03	0.16	0.085	0.049	0.244
CEL1	7BCEFGHJK	ENG	PEL_SEINE	COD								0.126			
CEL1	7BCEFGHJK	ENG	PEL_TRAWL	COD	0.104	0.024			0.069	0.007	0.03	0.092	0.073	0.16	0.153
CEL1	7BCEFGHJK	ENG	POTS	COD	0.412	0.018	0.011	0.093	0.107	0.178	0.13	0.242	0.37	0.326	0.03
CEL1	7BCEFGHJK	ENG	TR1	COD	40.809	26.984	21.295	32.43	21.876	27.349	16.743	24.086	43.597	84.59	86.322
CEL1	7BCEFGHJK	ENG	TR2	COD	64.596	40.502	48.635	53.06	79.702	60.178	39.054	53.593	41.575	46.644	50.203
CEL1	7BCEFGHJK	ENG	TR3	COD	0.005		0.233			0.011	0.036				
CEL1	7BCEFGHJK	FRA	BEAM	COD			0.002								
CEL1	7BCEFGHJK	FRA	BT2	COD	0.002	0.885	0.028	2.974	0.102	0.021	0.021	0.544	0.312	0.029	
CEL1	7BCEFGHJK	FRA	DREDGE	COD	0.288	0.034	0.037	0.06	1.075	1.752	1.752	5.327	0.329	0.125	
CEL1	7BCEFGHJK	FRA	GN1	COD	11.279	8.45	4.912	5.478	3.997	5.107	5.107	5.971	32.644	34.26	12.298
CEL1	7BCEFGHJK	FRA	GT1	COD	13.603	9.215	11.227	5.866	8.448	10.63	10.63	21.304	35.754	52.842	34.042
CEL1	7BCEFGHJK	FRA	LL1	COD	8.756	4.655	0.633	16.829	2.01	1.818	1.818	2.658	8.261	5.087	7.19
CEL1	7BCEFGHJK	FRA	NONE	COD	0.006				0.012						
CEL1	7BCEFGHJK	FRA	OTTER	COD	0.7	2.072	0.375	0.031	0.532	0.077	0.077	5.931	6.812	0.771	0.172
CEL1	7BCEFGHJK	FRA	PEL_SEINE	COD										75.339	51.83
CEL1	7BCEFGHJK	FRA	PEL_TRAWL	COD	0.838	0.008	0.1	0.3	0.088	0.003	0.003	4.93	2.764	21.212	0.326
CEL1	7BCEFGHJK	FRA	POTS	COD		0.002						0.401	1	0.225	
CEL1	7BCEFGHJK	FRA	TR1	COD	2396.257	1118.188	622.914	673.277	790.633	665.85	664.402	1030.795	2467.635	3702.196	3218.695
CEL1	7BCEFGHJK	FRA	TR2	COD	742.602	288.158	353.335	379.731	459.729	359.223	358.789	324.733	383.647	359.223	369.397
CEL1	7BCEFGHJK	FRA	TR3	COD				0.004				3.353	4.687		
CEL1	7BCEFGHJK	GBG	TR2	COD				0.035	0.017	0.013		0.023	0.002	0.091	0.019
CEL1	7BCEFGHJK	GBJ	BEAM	COD		0.046									
CEL1	7BCEFGHJK	GBJ	BT2	COD	6.487	10.573	4.43								
CEL1	7BCEFGHJK	GBJ	TR2	COD	0.004			0.011	0.104	0.08	0.028	0.092	0.17	0.025	0.012
CEL1	7BCEFGHJK	IRL	BEAM	COD	4.7	26.25	0.52								
CEL1	7BCEFGHJK	IRL	BT2	COD	68.41	82.18	167.12	165	118	93.6	83.38	100.68	86.98	138.1	169.49
CEL1	7BCEFGHJK	IRL	DEM_SEINE	COD	0.6	5.04	1.35								
CEL1	7BCEFGHJK	IRL	DREDGE	COD	0.91	1.2		0.14							
CEL1	7BCEFGHJK	IRL	GN1	COD	42.59	79.48	99.04	84.39	93.68	102.28	163.46	160.2	167.77	218.23	116.87
CEL1	7BCEFGHJK	IRL	GT1	COD	0.09			0.04	0.08	0.08	0.17	1.88	0.67	1.92	8.85
CEL1	7BCEFGHJK	IRL	LL1	COD			0.3	0.13	0.04	0.79	0.09			0.33	0.22
CEL1	7BCEFGHJK	IRL	NONE	COD										35.06	21.56
CEL1	7BCEFGHJK	IRL	OTTER	COD	6.65	36.82	0.05	0.13			0.04	0.03			0.18
CEL1	7BCEFGHJK	IRL	PEL_SEINE	COD	4.52	4.96	0.53								
CEL1	7BCEFGHJK	IRL	PEL_TRAWL	COD	0.58	4.66	0.85	0.64	0.43		1.05	0.4	8	1.47	0.87
CEL1	7BCEFGHJK	IRL	POTS	COD	0.05	0.66	0.17	0.13	0.1		2.7	0.2	1.45	0.32	0.13
CEL1	7BCEFGHJK	IRL	TR1	COD	96.05	119.13	164.68	206.38	180.88	209.45	364.94	464.3	517.42	739.93	819.63
CEL1	7BCEFGHJK	IRL	TR2	COD	247.36	235.45	369.74	405.41	300.71	278.08	309.02	384.35	292.84	439.68	375.3
CEL1	7BCEFGHJK	IRL	TR3	COD	0.04	0.17		0.12					0.32	0.11	0.02
CEL1	7BCEFGHJK	NED	BT2	COD											
CEL1	7BCEFGHJK	NED	LL1	COD											
CEL1	7BCEFGHJK	NED	TR1	COD										1	
CEL1	7BCEFGHJK	NED	TR2	COD	2		1	4	2		4	3	7	5	2
CEL1	7BCEFGHJK	NIR	TR1	COD	2.162			0.17			0.027	0.45	14.406	19.035	4.733
CEL1	7BCEFGHJK	NIR	TR2	COD		3.025	4.449	4.877	1.899	17.084	17.489	13.349	1.094	6.526	11.647
CEL1	7BCEFGHJK	SCO	BT2	COD					1.17						
CEL1	7BCEFGHJK	SCO	DREDGE	COD	0.057		0.002	0.008	0.001	0.026	0.017	0.009			
CEL1	7BCEFGHJK	SCO	GN1	COD			1.201	0.293			0.005				
CEL1	7BCEFGHJK	SCO	TR1	COD	8.039	10.902		3.482	1.647	6.032	4.716	8.976	28.813	46.428	23.005
CEL1	7BCEFGHJK	SCO	TR2	COD	1.368	2.456		1.903	1.329	2.592	2.043	1.391	8.175	2.59	10.109

Table 5.6.2.1.2. Discard rate and associated coverage index for Cod in Cel1 (7bcefghjk) by Gear and Special condition as defined under the cod management plan. A, ≥ 66% of landings have associated discard sampling, B, ≥ 33% < 66% of landings have associated discard sampling, C < 33% of landings have associated discard sampling. 2004-2013. Gear/Special condition combinations without discard data omitted.

annex	reg_area	reg_gear	specon	species	2004 R	2005 R	2006 R	2007 R	2008 R	2009 R	2010 R	2011 R	2012 R	2013 R	2004 D	2005 D	2006 D	2007 D	2008 D	2009 D	2010 D	2011 D	2012 D	2013 D
CEL1	7BCEFGHJK	BT2	NONE	COD	0.019			0.146	0.206	0.111	0.547	0.675	0.135	0.059	C	C	C	A	A	B	C	A	A	A
CEL1	7BCEFGHJK	GN1	NONE	COD				0.001		0.054	0.102	0.260	0.234	0.044	C	C	C	C	C	B	B	B	B	B
CEL1	7BCEFGHJK	GT1	NONE	COD							0.418	0.627	0.359	0.776	C	C	C	C	C		C	C	B	C
CEL1	7BCEFGHJK	LL1	NONE	COD											C	C		B	C					
CEL1	7BCEFGHJK	OTTER	NONE	COD	0.036	0.130	0.946	0.007	0.034	0.064	0.183	0.264	0.057	0.028	C	C	C	C	C	C	C	A	C	C
CEL1	7BCEFGHJK	PEL_TRAWL	NONE	COD	0.200						0.011				C		C				C			
CEL1	7BCEFGHJK	TR1	NONE	COD	0.007	0.177	0.055	0.098	0.028	0.460	0.392	0.255	0.063	0.093	A	A	A	A	A	C	B	B	B	C
CEL1	7BCEFGHJK	TR2	NONE	COD	0.071	0.422	0.249	0.450	0.084	0.270	0.574	0.482	0.391	0.110	B	B	B	B	B	B	B	B	B	B
CEL1	7BCEFGHJK	TR3	NONE	COD	0.012				0.686		0.015	0.049		0.750	A				C		C	B	A	A

5.6.2.2 ICES subdivisions 7fg (Cel2)

STECF EWG 14-13 presents the requested cod in weight by fisheries. Age specific data are available on the internet page of the STECF EWG 14-13: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1413.

STECF EWG 14-13 notes that discard information is scarce and presents only landing values; though figures have been provided on catch where some discard information is available (Figures 5.6.3.2.1 –2), this should be interpreted with care due to some key fisheries not having discard information.

Table 5.6.2.2.2 presents discard rates alongside a discard coverage index for what information is available for gears catching cod in the Celtic Sea sub-divisions VIIfg (Cel2). Where no information is available, the gear has been excluded from the table. Discard coverage for landings from the sub-divisions 7fg is better than for the wider Celtic Sea, with the discard coverage index A (> 66% of landings with discard samples) for the main cod catching gears (TR1, TR2, GN1). It should be noted that the discard coverage index is only an indication of where a minimum one sample has been provided; therefore it should not necessarily be interpreted an indication of discard information quality, just that some information was available for fisheries using the gear.

Figure 5.6.3.2.1-2 show landings and estimated discards of cod (where available) for the main gear in the Celtic Sea subareas VIIfg catching cod. Landings by the main TR1 gear increased in 2012. This reflects the particularly strong 2010 year class (the largest since 1987) entering the fishery (ICES, 2013).

Table 5.6.2.2.1 lists the cod landings by Member States and gears from 7fg, 2004-2013. It can be seen that landings by most countries and gears has increase in 2012. The largest fishery (French TR1) has doubled its landings of cod in 2012 compared to 2011.

Figure 5.6.2.2.1 provides information on cod landings from the sub-area 7fg (Cel2) as a proportion of the total landings from the wider 7bcefghjk (Cel2). Landings of cod have generally been >60% over 2003-2012, with the one exception of 2011 when they dropped to 47%, before increasing again in 2012 and 2013.

Table 5.6.2.2.1 Cod landings (t) by Member States and gears, 2004-2013.

ANNEX	REG_AREA	COUNTRY	REG_GEAR	SPECIES	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
CEL2	7FG	BEL	BEAM	COD	0.111	0.217		0.093		0.1	0.068	0.453	0.46	0.095
CEL2	7FG	BEL	BT1	COD										0.034
CEL2	7FG	BEL	BT2	COD	141.632	171.674	86.044	86.225	50.632	27.826	32.115	80.394	219.346	154.989
CEL2	7FG	BEL	OTTER	COD										
CEL2	7FG	BEL	TR1	COD										1.279
CEL2	7FG	BEL	TR2	COD	2.725	4.547	9.617	14.449	8.948	13.088	13.386	29.809	54.259	40.017
CEL2	7FG	ENG	BEAM	COD		0.425			0.011					0.079
CEL2	7FG	ENG	BT1	COD	0.221									
CEL2	7FG	ENG	BT2	COD	35.084	32.418	27.547	33.199	15.183	8.977	12.173	16.12	50.06	30.086
CEL2	7FG	ENG	DREDGE	COD								0.002		0.156
CEL2	7FG	ENG	GN1	COD	57.018	70.565	98.91	89.124	51.483	49.533	29.824	33.648	62.64	83.812
CEL2	7FG	ENG	GT1	COD		0.231	1.213	1.97	0.934	0.652	0.324	0.596	7.219	4.826
CEL2	7FG	ENG	LL1	COD		2.496	1.867	0.133		0.008	0.009	0.188	0.003	
CEL2	7FG	ENG	OTTER	COD		0.128		0.249	0.012	0.001	0.009	0.076	0.046	0.001
CEL2	7FG	ENG	POTS	COD							0.003		0.212	0.018
CEL2	7FG	ENG	TR1	COD	14.676	5.224	5.43	3.627	2.437	2.54	2.933	2.738	23.457	9.456
CEL2	7FG	ENG	TR2	COD	8.335	13.039	17.756	15.288	10.074	4.773	9.765	9.461	12.27	8.377
CEL2	7FG	ENG	TR3	COD		0.103								
CEL2	7FG	FRA	BT2	COD			2.079				0.02	0.025		
CEL2	7FG	FRA	GN1	COD	1.775	0.116		0.228	0.058	0.058	0.28	0.95	2.258	1.03
CEL2	7FG	FRA	GT1	COD	0.023	0.533	0.43	0.687	0.612	0.612	0.6	2.73	0.87	3.27
CEL2	7FG	FRA	LL1	COD		0.025								1.26
CEL2	7FG	FRA	OTTER	COD	1.68						1.75	1.41	0.05	
CEL2	7FG	FRA	PEL_SEINE	COD									55.742	37.08
CEL2	7FG	FRA	PEL_TRAWL	COD			0.112					1.275	15.327	0.17
CEL2	7FG	FRA	TR1	COD	945.649	519.461	522.138	605.946	443.537	442.621	669.67	1102.708	2254.802	2379.47
CEL2	7FG	FRA	TR2	COD	89.287	84.618	46.927	59.485	20.052	20.052	19.77	8.259	18.256	1.73
CEL2	7FG	FRA	TR3	COD								0.763		
CEL2	7FG	GBJ	BT2	COD	6.072	1.256								
CEL2	7FG	IRL	BEAM	COD	23.74	0.52								
CEL2	7FG	IRL	BT2	COD	65.9	141.89	153.16	105.15	88.35	78.67	97.39	84.87	137.87	168.11
CEL2	7FG	IRL	DEM_SEINE	COD	4.96	1.22								
CEL2	7FG	IRL	DREDGE	COD	1.03		0.14							
CEL2	7FG	IRL	GN1	COD	71.59	92.27	71.34	85.45	92.43	153.35	145.59	145.53	183.56	100.92
CEL2	7FG	IRL	GT1	COD				0.04	0.04		1.42	0.47	1.49	7.13
CEL2	7FG	IRL	LL1	COD									0.29	
CEL2	7FG	IRL	NONE	COD									23.45	15.92
CEL2	7FG	IRL	OTTER	COD	30.59		0.02			0.04				
CEL2	7FG	IRL	PEL_SEINE	COD	4.81	0.53								
CEL2	7FG	IRL	PEL_TRAWL	COD	4.47		0.56	0.27		1.05		7.97	1.37	0.8
CEL2	7FG	IRL	POTS	COD	0.66	0.03				0.02	0.16	1.45	0.01	
CEL2	7FG	IRL	TR1	COD	62.68	101.39	150.08	143.5	174.31	305.83	356.14	388.09	599.06	634.25
CEL2	7FG	IRL	TR2	COD	187.24	331.29	382.84	272.33	251.17	294.08	362.54	266.72	415.98	347.26
CEL2	7FG	IRL	TR3	COD			0.12							0.02
CEL2	7FG	NED	TR2	COD										
CEL2	7FG	NIR	TR1	COD			0.17			0.027	0.45	13.763	19.035	4.061
CEL2	7FG	NIR	TR2	COD	3.025	4.449	4.877	1.899	17.084	17.386	13.16	1.094	6.526	11.647
CEL2	7FG	SCO	DREDGE	COD			0.001							
CEL2	7FG	SCO	GN1	COD		1.201								
CEL2	7FG	SCO	TR1	COD	0.475		0.149		0.035	0.104	4.007	3.875	14.19	12.55
CEL2	7FG	SCO	TR2	COD	2.358		0.034		0.077	1.033	0.318	1.456	0.99	5.617

Table 5.6.2.2.2. Discard rate and associated coverage index for Cod in Cel2 (7fg) by Gear and Special condition as defined under the cod management plan. A, ≥ 66% of landings have associated discard sampling, B, ≥ 33% < 66% of landings have associated discard sampling, C < 33% of landings have associated discard sampling. 2004-2013. Gear/Special condition combinations without discard data omitted.

annex	reg_area	reg_gear	specon	species	2004 R	2005 R	2006 R	2007 R	2008 R	2009 R	2010 R	2011 R	2012 R	2013 R	2004 D(	2005 D(	2006 D(	2007 D(	2008 D(	2009 D(	2010 D(	2011 D(	2012 D(	2013 D(
CEL2	7FG	BT2	NONE	COD	0.026			0.176	0.227	0.154	0.359	0.394	0.162	0.039	C		C	A	A	A	C	A	A	A
CEL2	7FG	DREDGE	NONE	COD							1.000										A			
CEL2	7FG	GN1	NONE	COD				0.001		0.038	0.104	0.192	0.267	0.048	C	C		C	C	A	A	B	A	B
CEL2	7FG	GT1	NONE	COD							0.212	0.463	0.707	0.758			C	C	C		B	C	C	C
CEL2	7FG	OTTER	NONE	COD	0.033	0.357	0.969	0.027	0.538	0.196	0.006	0.039	0.342		C	C	C	C	C	A	C	C	C	
CEL2	7FG	PEL_TRAWL	NONE	COD	0.207										C									
CEL2	7FG	TR1	NONE	COD	0.007	0.181	0.061	0.080	0.031	0.447	0.415	0.412	0.087	0.110	A	A	A	A	A	B	B	B	B	C
CEL2	7FG	TR2	NONE	COD	0.085	0.457	0.276	0.576	0.093	0.211	0.421	0.535	0.333	0.117	A	A	A	B	A	A	A	A	A	A
CEL2	7FG	TR3	NONE	COD					1.000					0.600					A					A

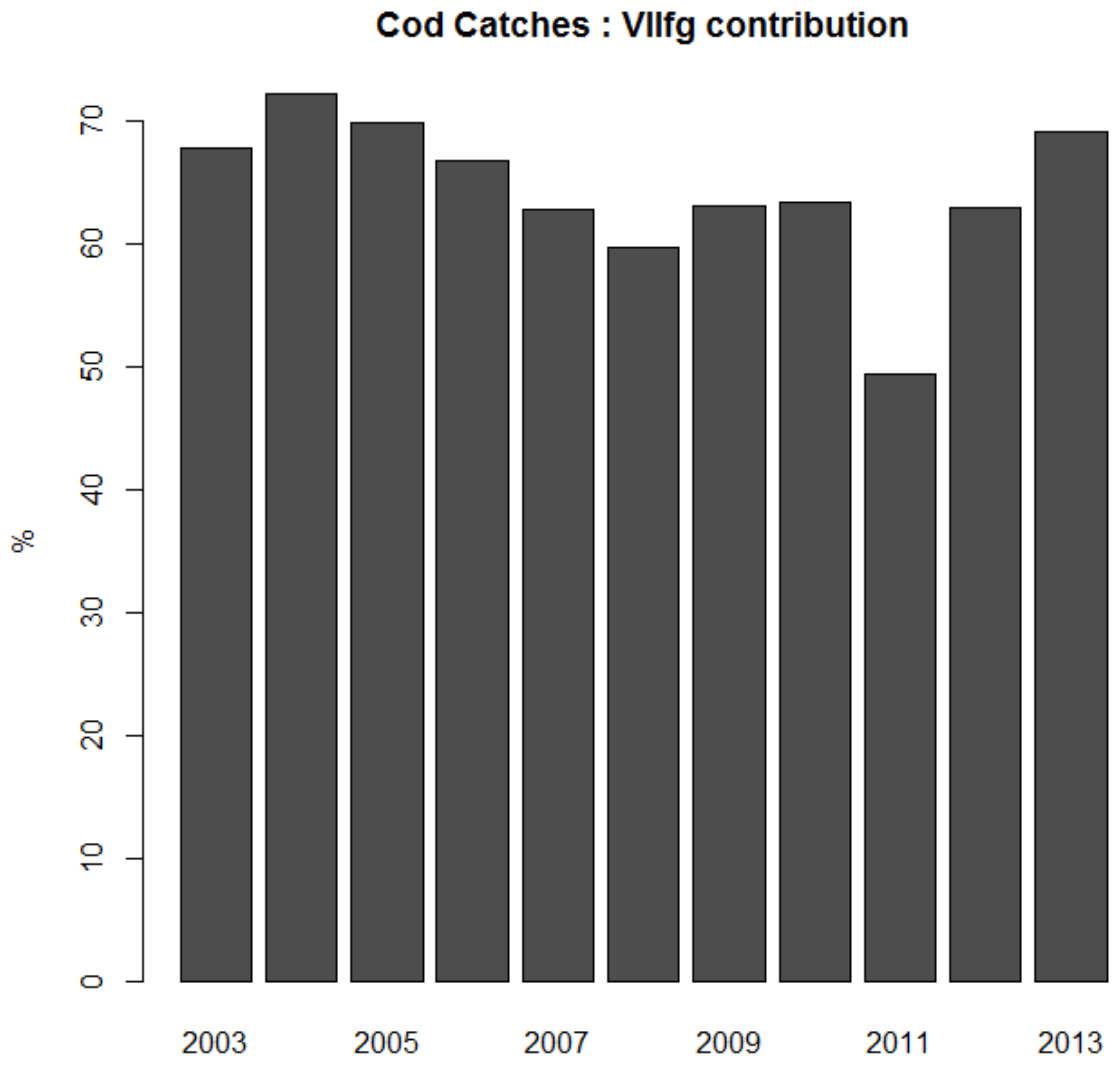


Figure 5.6.2.2.1 Cod: Contribution of the landings from ICES Divisions VIIfg to the total landings from the Celtic Sea (ICES Divisions VIIbc,e-k) over 2003-2014

5.6.3 ToR 1. c Catches (landings and discards) of non-cod species in weight and numbers at age by area, Member State and fisheries

5.6.3.1 ICES sub-divisions 7bcefghjk (Cel1)

STECF EWG 14-13 presents the requested data in weight by fisheries. Age specific data are available on the internet page of the STECF EWG 14-13

STECF EWG 14-13 notes that discard information is scarce and presents only landing values; though figures have been provided on catch where some discard information is available (Figures 5.6.3.1.1 – 2), this should be interpreted with care due to some key fisheries not having discard information.

Table 5.6.3.1.8 presents discard rates alongside a discard coverage index for what information is available for gears catching anglerfish, haddock, hake, *Nephrops*, plaice, sole and whiting in the wider Celtic Sea. As can be seen, in most cases the discard coverage index is either C (<33% of landings having discard information) or B (≥ 33% < 66%), reflecting the poor discard coverage in the data. It should be noted that the discard coverage index is only an indication of where a minimum one sample has been provided; therefore it should not necessarily be interpreted an indication of discard information quality, just that some information was available for fisheries using the gear.

Figure 5.6.3.1.1-2 shows landings and discards estimates (where available) of anglerfish, haddock, hake, Nephrops, plaice, sole, and whiting by the main gears from the wider Celtic Sea 7bcefghjk (Cel1), 2003-2012. Landings of anglerfish have increased significantly in 2011 and 2012, while landings of haddock and whiting have also increased by the main gear (TR1). Discards estimates should be interpreted with care and compared to the discard coverage (Table 5.6.3.1.9)

Table 5.6.3.1.1-7 lists the anglerfish, haddock, hake, Nephrops, plaice, sole, and whiting landings by Member States and gears, 2003-2013. Landings of anglerfish and haddock by the main French fishery (TR1) have increased significantly in 2012; while Irish TR1 whiting landings have also been increasing (landings in 2012 greater than double the landings in 2009). Large increases in Hake landings by longlines (LL1) from 2012 are due to the inclusion of Spanish data since this year.

Table 5.6.3.1.9 shows the discard rate and discard coverage index for pelagic species which contribute to >1% of the landings of the main pelagic gears (PEL_TRAWL and PEL_SEINE). This includes albacore tuna, boarfish, herring, horse mackerel, mackerel, sardine, sprat, and blue whiting. Discard information for *Nephrops* has also been presented. Where no discard information was available for a gear/species it was omitted from the table. As can be seen, discard information from the fisheries is scarce and where available considered to be of low coverage of the landings (in most cases classified as C, <33% of landings covered by discard information). It should be noted that the discard coverage index is only an indication of where a minimum one sample has been provided; therefore it should not necessarily be interpreted an indication of discard information quality, just that some information was available for fisheries using the gear.

Figures 5.6.3.1.3 – 5 show the landings composition of the main gears (TR1, TR2, BT2, GN1, PEL_TRAWL) 2003-2013 from the wider Celtic Sea (Cel1; 7bcefghjk). The main species caught in this area per gear category was defined as species representing more than 2% of the total landings on average, 2003-2013.

For TR1 gear, landings composition has remained relatively stable over the time series, with landings predominately being made up from anglerfish, cod, haddock, hake, megrim, *Nephrops*, and whiting.

For TR2 gear, landings composition is more mixed, being predominately made up of Anglerfish, cuttlefish, gurnard, haddock, megrim, *Nephrops*, queen scallops and whiting. Since 2009 there have been no reported landings of cuttlefish from the fishery, with a larger proportion of the landings being made up of *Nephrops*, megrim and haddock.

For BT2 gear, landings composition has been stable over the time series, consisting predominately of anglerfish, megrim, plaice and sole. For GN1 Hake has become a more prominent (the predominant) component of landings since 2009 with Pollack, anglerfish and spider crab also being important.

The Pelagic trawl fishery mainly consisted of landings of horse mackerel, mackerel and blue whiting up until 2009, when landings of boarfish have also become an important component of the fishery.

Table 5.6.3.1.1 Anglerfish landings (t) by Member States and gears, 2004-2013.

ANNEX	REG_AREA	COUNTRY	REG_GEAR	SPECIES	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
CEL1	7BCEFGHJK	BEL	BEAM	ANF	69.384	0.714	0.339	1.725		0.549	1.134	3.225	12.7	4.782
CEL1	7BCEFGHJK	BEL	BT1	ANF										0.636
CEL1	7BCEFGHJK	BEL	BT2	ANF	969.75	763.155	755.394	849.828	434.538	373.08	516	785.666	1129.676	944.719
CEL1	7BCEFGHJK	BEL	DREDGE	ANF					0.237	3.171	2.704	1.731	5.473	
CEL1	7BCEFGHJK	BEL	GN1	ANF					0.441					
CEL1	7BCEFGHJK	BEL	OTTER	ANF										
CEL1	7BCEFGHJK	BEL	TR1	ANF										0.708
CEL1	7BCEFGHJK	BEL	TR2	ANF	17.925	27.411	57.462	59.676	76.845	69.156	54.045	51.6	109.719	75.845
CEL1	7BCEFGHJK	ENG	BEAM	ANF	0.125	4.118	4.607	1.629		1.632	3.058	2.295	1.414	3.193
CEL1	7BCEFGHJK	ENG	BT1	ANF	10.79									
CEL1	7BCEFGHJK	ENG	BT2	ANF	1556.588	1583.802	1619.029	1986.091	1621.344	1616.624	2070.07	2335.66	2058.506	2061.479
CEL1	7BCEFGHJK	ENG	DREDGE	ANF	30.681	33.171	60.544	55.966	28.764	47.25	70.404	92.911	84.041	94.613
CEL1	7BCEFGHJK	ENG	GN1	ANF	408.758	593.127	306.081	535.198	293.233	215.906	397.28	198.966	309.166	457.953
CEL1	7BCEFGHJK	ENG	GT1	ANF	8.685	30.48	78.825	12.409	20.819	20.166	15.011	73.592	95.706	115.614
CEL1	7BCEFGHJK	ENG	LL1	ANF	1.142	1.23	0.352	2.478	0.061	0.017	0.057	0.031	0.097	0.037
CEL1	7BCEFGHJK	ENG	NONE	ANF										12.095
CEL1	7BCEFGHJK	ENG	OTTER	ANF	0.29	0.322	0.074	0.436	0.157	0.546	0.917	0.333	0.271	0.593
CEL1	7BCEFGHJK	ENG	PEL_TRAWL	ANF						0.068	0.019	0.003		
CEL1	7BCEFGHJK	ENG	POTS	ANF	0.347	0.042	0.115	0.662	0.551	0.106	0.157	0.136	0.047	0.073
CEL1	7BCEFGHJK	ENG	TR1	ANF	512.023	433.874	654.319	827.501	740.172	746.04	975.928	1351.108	1084.582	1696.217
CEL1	7BCEFGHJK	ENG	TR2	ANF	277.261	345.145	286.182	434.38	295.299	314.564	364.749	282.11	260.741	378.614
CEL1	7BCEFGHJK	ENG	TR3	ANF		0.252				0.006				
CEL1	7BCEFGHJK	ESP	GN1	ANF									0.792	51.222
CEL1	7BCEFGHJK	ESP	LL1	ANF									0.05	0.085
CEL1	7BCEFGHJK	ESP	NONE	ANF									0.43	
CEL1	7BCEFGHJK	ESP	OTTER	ANF										1 2.197
CEL1	7BCEFGHJK	ESP	TR1	ANF									779.442	1928.91
CEL1	7BCEFGHJK	ESP	TR2	ANF									463.409	982.639
CEL1	7BCEFGHJK	FRA	BEAM	ANF		0.099	0.001							
CEL1	7BCEFGHJK	FRA	BT2	ANF	0.731	3.724	9.612	3.185	0.096	0.096	0.037	0.01		0.97
CEL1	7BCEFGHJK	FRA	DREDGE	ANF	13.77	7.571	5.813	9.913	5.428	5.409	0.24	1.267	0.831	1.5
CEL1	7BCEFGHJK	FRA	GN1	ANF	1590.054	1640.339	893.434	1146.897	1961.755	1961.755	268.534	644.778	773.235	920.684
CEL1	7BCEFGHJK	FRA	GT1	ANF	1273.253	1417.91	1014.027	1226.742	1218.735	1218.735	157.11	607.403	779.464	1127.779
CEL1	7BCEFGHJK	FRA	LL1	ANF	0.036	0.381	0.206	0.227	0.022	0.022		0.16		0.19
CEL1	7BCEFGHJK	FRA	NONE	ANF	0.506	0.916	0.101	0.003	0.049	0.049				
CEL1	7BCEFGHJK	FRA	OTTER	ANF	10.9	20.738	1.342	2.223	0.382	0.382	4.22	18.031	8.613	360.83
CEL1	7BCEFGHJK	FRA	PEL_SEINE	ANF								1.5	68.208	86.98
CEL1	7BCEFGHJK	FRA	PEL_TRAWL	ANF	0.136	0.815	8.615	2.314	0.304	0.304		1.564	13.425	1.42
CEL1	7BCEFGHJK	FRA	POTS	ANF	0.773	2.022	0.473	3.105	0.2	0.2	1.76	0.37	10.857	2.336
CEL1	7BCEFGHJK	FRA	TR1	ANF	3436.553	2633.101	3797.081	3924.894	2866.48	2851.53	1243.376	4975.547	6129.58	7777.91
CEL1	7BCEFGHJK	FRA	TR2	ANF	3443.435	3415.986	2697.8	2909.464	2097.271	2094.891	485.4	1167.473	2000.204	3084.564
CEL1	7BCEFGHJK	FRA	TR3	ANF	0.02		0.066		0.04	0.04		10.126	0.04	0.02
CEL1	7BCEFGHJK	GBG	TR2	ANF					0.024	0.003	0.009		0.609	
CEL1	7BCEFGHJK	GBJ	BEAM	ANF	0.007									
CEL1	7BCEFGHJK	GBJ	BT2	ANF	94.121	53.737								
CEL1	7BCEFGHJK	GBJ	DREDGE	ANF										
CEL1	7BCEFGHJK	GBJ	TR1	ANF									0.014	
CEL1	7BCEFGHJK	GBJ	TR2	ANF			0.192	0.018	0.079	0.044	0.116	0.058	0.003	
CEL1	7BCEFGHJK	GER	GN1	ANF	196.75	142.172	35.373	226.44	248.113	168.485	251.471	184.78	266.11	345.3
CEL1	7BCEFGHJK	GER	POTS	ANF										
CEL1	7BCEFGHJK	IOM	DREDGE	ANF			2.937	0.132						
CEL1	7BCEFGHJK	IRL	BEAM	ANF	67.88	0.46								
CEL1	7BCEFGHJK	IRL	BT1	ANF										
CEL1	7BCEFGHJK	IRL	BT2	ANF	209.34	471.02	557.63	392.86	390.21	476.51	485.2	468.79	499.78	566.36
CEL1	7BCEFGHJK	IRL	DEM_SEINE	ANF	8.81	3.07								
CEL1	7BCEFGHJK	IRL	DREDGE	ANF	6.06	4.2	0.44	0.13		0.05				
CEL1	7BCEFGHJK	IRL	GN1	ANF	65.94	64.74	54.74	26.65	20.09	37.37	32.6	47.72	42.47	20.9
CEL1	7BCEFGHJK	IRL	GT1	ANF	0.01		1.22	6.22	13.24	10.28	24.28	17.94	17.26	10.22
CEL1	7BCEFGHJK	IRL	LL1	ANF		5.19		0.1	0.01	0.01		0.05		0.24
CEL1	7BCEFGHJK	IRL	NONE	ANF		0.14							230.68	114.74
CEL1	7BCEFGHJK	IRL	OTTER	ANF	146.7	12.7	2.32	0.03		0.08		4.75	0.98	0.08
CEL1	7BCEFGHJK	IRL	PEL_SEINE	ANF	4.87	0.7								
CEL1	7BCEFGHJK	IRL	PEL_TRAWL	ANF	9.29	13.95	2.23	4.36	6.71	11.49	14.19	9.26	1.55	0.5
CEL1	7BCEFGHJK	IRL	POTS	ANF	1.75		3.16	1.02	1.07	0.61	0.56	1.41	2.59	1.79
CEL1	7BCEFGHJK	IRL	TR1	ANF	479.96	777.64	981.95	1075.38	1014.89	1767.7	2354.29	1982.42	1448.06	1417.61
CEL1	7BCEFGHJK	IRL	TR2	ANF	798.7	973.93	1132.61	1271.53	919.46	775.8	869.51	874.35	990.81	781.96
CEL1	7BCEFGHJK	IRL	TR3	ANF			7.41		0.27	0.07	3.19	9.74	0.02	0.05
CEL1	7BCEFGHJK	NED	DREDGE	ANF	15	16	13	11	4	11	4			
CEL1	7BCEFGHJK	NED	TR2	ANF			3				1	2		
CEL1	7BCEFGHJK	NIR	TR1	ANF							1.033	1.983	4.634	4.561
CEL1	7BCEFGHJK	NIR	TR2	ANF	3.916	4.492	2.465	3.228	8.924	18.816	12.487	0.82	6.026	9.629
CEL1	7BCEFGHJK	SCO	BT2	ANF						0.63				
CEL1	7BCEFGHJK	SCO	DREDGE	ANF	20.857	36.002	43.54	25.69	21.029	29.228	41.388	10.642	15.695	20.693
CEL1	7BCEFGHJK	SCO	GN1	ANF	120.253	383.754	293.459	325.924	574.798	672.811	662.075	772.61	737.156	645.684
CEL1	7BCEFGHJK	SCO	GT1	ANF	1.683									
CEL1	7BCEFGHJK	SCO	LL1	ANF			0.271		0.057					
CEL1	7BCEFGHJK	SCO	NONE	ANF										0.159
CEL1	7BCEFGHJK	SCO	OTTER	ANF		3.381				0.056			5.226	
CEL1	7BCEFGHJK	SCO	TR1	ANF	279.262	276.211	192.228	219.325	338.894	429.248	545.673	591.34	577.158	182.595
CEL1	7BCEFGHJK	SCO	TR2	ANF	49.439	58.69	91.342	41.792	142.508	108.302	161.728	150.933	133.093	88.06

Table 5.6.3.1.2 Haddock landings (t) by Member States and gears, 2004-2013.

ANNEX	REG_AREA	COUNTRY	REG_GEAR	SPECIES	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
CEL1	7BCEFGHJK	BEL	BEAM	HAD		0.157	0.057	0.16		0.174	0.797	1.548	1	0.612
CEL1	7BCEFGHJK	BEL	BT1	HAD										0.11
CEL1	7BCEFGHJK	BEL	BT2	HAD	129.085	158.561	90.194	98.424	89.725	97.257	123.445	164.368	165.578	129.95
CEL1	7BCEFGHJK	BEL	OTTER	HAD										
CEL1	7BCEFGHJK	BEL	TR1	HAD										0.183
CEL1	7BCEFGHJK	BEL	TR2	HAD	1.693	7.203	8.111	17.643	18.138	34.248	42.307	44.734	64.625	43.114
CEL1	7BCEFGHJK	ENG	BEAM	HAD		0.794	0.071	0.009		0.01	0.052	0.398	0.076	0.033
CEL1	7BCEFGHJK	ENG	BT1	HAD	1.075									
CEL1	7BCEFGHJK	ENG	BT2	HAD	138.148	116.923	63.397	79.81	72.579	106.402	105.045	183.217	259.508	122.469
CEL1	7BCEFGHJK	ENG	DREDGE	HAD	0.001	0.002	0.008	0.001	0.003	0.01	0.003	0.05	0.162	0.085
CEL1	7BCEFGHJK	ENG	GN1	HAD	66.345	69.853	55.999	41.344	37.49	40.598	34.673	52.427	39.453	72.516
CEL1	7BCEFGHJK	ENG	GT1	HAD	0.009	0.226	0.41	1.152	0.449	0.082	0.051	0.597	0.347	0.887
CEL1	7BCEFGHJK	ENG	LL1	HAD	5.985	10.702	12.513	6.833	0.32		0.002	0.021		0.014
CEL1	7BCEFGHJK	ENG	NONE	HAD										1.075
CEL1	7BCEFGHJK	ENG	OTTER	HAD		0.046		0.243	0.001	0.229	0.183	0.824	0.019	0.051
CEL1	7BCEFGHJK	ENG	PEL_SEINE	HAD							2.585			
CEL1	7BCEFGHJK	ENG	PEL_TRAWL	HAD							0.005			
CEL1	7BCEFGHJK	ENG	POTS	HAD		1.017			0.213		0.001	0.036	0.019	0.008
CEL1	7BCEFGHJK	ENG	TR1	HAD	43.489	25.527	32.278	105.448	265.408	274.014	345.025	770.398	698.201	546.025
CEL1	7BCEFGHJK	ENG	TR2	HAD	36.129	47.86	71.174	103.399	116.477	99.045	182.717	191.622	159.908	117.211
CEL1	7BCEFGHJK	ENG	TR3	HAD		0.302								
CEL1	7BCEFGHJK	ESP	GN1	HAD									0.44	
CEL1	7BCEFGHJK	ESP	NONE	HAD									0.396	
CEL1	7BCEFGHJK	ESP	TR1	HAD									11.974	1.055
CEL1	7BCEFGHJK	ESP	TR2	HAD									21.494	
CEL1	7BCEFGHJK	FRA	BT2	HAD			3.246							
CEL1	7BCEFGHJK	FRA	DREDGE	HAD		0.002		0.252	0.016	0.016		0.772		
CEL1	7BCEFGHJK	FRA	GN1	HAD	5.125	12.029	4.478	6.979	3.205	3.205	7.513	6.176	9.12	14.249
CEL1	7BCEFGHJK	FRA	GT1	HAD	0.01	0.045	0.025	0.81	0.037	0.037	2.06	1.168	1.57	4.397
CEL1	7BCEFGHJK	FRA	LL1	HAD	2.684	2.142	1.32	1.027	0.244	0.244	2.4	3.624	2.509	6.203
CEL1	7BCEFGHJK	FRA	OTTER	HAD	3.258	1.009	0.001	0.161			14.337	9.359	5.649	4.666
CEL1	7BCEFGHJK	FRA	PEL_SEINE	HAD								0.38	191.154	133.15
CEL1	7BCEFGHJK	FRA	PEL_TRAWL	HAD			0.224	0.016			0.08	1.445	38.483	2.601
CEL1	7BCEFGHJK	FRA	POTS	HAD							0.18		0.001	
CEL1	7BCEFGHJK	FRA	TR1	HAD	3721.868	2148.483	1530.511	2110.358	2594.263	2583.607	4504.59	6463.16	8595.125	6697.81
CEL1	7BCEFGHJK	FRA	TR2	HAD	519.198	384.499	317.941	472.782	501.991	501.861	705.385	900.833	856.922	859.28
CEL1	7BCEFGHJK	FRA	TR3	HAD							6.15	9.69		
CEL1	7BCEFGHJK	GBG	TR2	HAD									0.362	
CEL1	7BCEFGHJK	GBJ	BEAM	HAD	0.003									
CEL1	7BCEFGHJK	GBJ	BT2	HAD	4.612	1.104								
CEL1	7BCEFGHJK	GBJ	TR2	HAD										0.001
CEL1	7BCEFGHJK	IRL	BEAM	HAD	47.37	0.65								
CEL1	7BCEFGHJK	IRL	BT1	HAD										
CEL1	7BCEFGHJK	IRL	BT2	HAD	137.13	208.32	188.26	166.47	139.88	171.6	171.02	152.75	269.29	228.38
CEL1	7BCEFGHJK	IRL	DEM_SEINE	HAD	33.03	4.81								
CEL1	7BCEFGHJK	IRL	DREDGE	HAD	4.11	0.12	0.09							
CEL1	7BCEFGHJK	IRL	GN1	HAD	62.65	60.2	41.99	66.59	49.41	58.86	69.02	124.02	121.75	122.57
CEL1	7BCEFGHJK	IRL	GT1	HAD			0.01	0.06	0.01	1.07	0.27	0.38	0.52	4.36
CEL1	7BCEFGHJK	IRL	LL1	HAD	0.09	2.3				0.08	0.46	0.16		
CEL1	7BCEFGHJK	IRL	NONE	HAD					0.05				103.08	31.18
CEL1	7BCEFGHJK	IRL	OTTER	HAD	106.66	4.98	1.33	0.12		0.75	0.08	0.8	4.99	1.42
CEL1	7BCEFGHJK	IRL	PEL_SEINE	HAD	42.18	7.1								
CEL1	7BCEFGHJK	IRL	PEL_TRAWL	HAD	5.46	2.04	2.47	4.51	0.31	3.93	4.96	37.34	20.62	8.26
CEL1	7BCEFGHJK	IRL	POTS	HAD	1.75	0.28	0.45	0.43	0.04	0.39	0.85	3.28	1.69	0.26
CEL1	7BCEFGHJK	IRL	TR1	HAD	322.45	539.58	641.07	754.96	838.93	1820.94	1648.35	2591.33	3066.16	1929.2
CEL1	7BCEFGHJK	IRL	TR2	HAD	951.54	1208.66	977.63	938.46	763.65	1318.93	1086.2	882.8	1099.36	728.99
CEL1	7BCEFGHJK	IRL	TR3	HAD	0.77	0.72	2.8	3.06	1.63	3.54	2.81	1.2	2.99	1.5
CEL1	7BCEFGHJK	NED	TR1	HAD									1	5
CEL1	7BCEFGHJK	NED	TR2	HAD							1	35	62	14
CEL1	7BCEFGHJK	NIR	TR1	HAD					11.578	0.021	41.112	92.499	262.711	365.736
CEL1	7BCEFGHJK	NIR	TR2	HAD	2.972	3.969	3.562	0.188	0.655	7.363	7.27	0.625	4.907	15.365
CEL1	7BCEFGHJK	SCO	BT2	HAD						2.974				
CEL1	7BCEFGHJK	SCO	DREDGE	HAD		0.005				0.002			0.006	
CEL1	7BCEFGHJK	SCO	GN1	HAD	0.134									
CEL1	7BCEFGHJK	SCO	LL1	HAD					1.048					0.456
CEL1	7BCEFGHJK	SCO	TR1	HAD	2.436	1.013	4.978	0.808	4.187	144.707	64.439	192.362	316.738	119.278
CEL1	7BCEFGHJK	SCO	TR2	HAD	2.393	0.883	4.344		1.185	7.721	1.622	61.076	26.105	11.328

Table 5.6.3.1.3 Hake landings (t) by Member States and gears, 2004-2013.

ANNEX	REG_AREA	COUNTRY	REG_GEAR	SPECIES	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
CEL1	7BCEFGHJK	BEL	BEAM	HKE	0.6			0.073				0.022	0.1	0.159
CEL1	7BCEFGHJK	BEL	BT2	HKE	13.505	10.559	15.036	9.742	5.166	5.412	8.783	9.788	6.788	8.68
CEL1	7BCEFGHJK	BEL	OTTER	HKE										
CEL1	7BCEFGHJK	BEL	TR1	HKE										0.003
CEL1	7BCEFGHJK	BEL	TR2	HKE	0.356	0.464	2.129	1.467	2.213	1.764	3.152	0.469	1.461	2.212
CEL1	7BCEFGHJK	ENG	BEAM	HKE		0.038	0.014	0.001		0.017	0.018	0.02	0.001	0.041
CEL1	7BCEFGHJK	ENG	BT1	HKE	0.12									
CEL1	7BCEFGHJK	ENG	BT2	HKE	25.448	18.962	15.869	11.515	16.342	25.861	22.549	18.127	14.283	14.261
CEL1	7BCEFGHJK	ENG	DREDGE	HKE	0.004	0.031	0.01	0.001	0.005	0.005	0.007	0.011	0.004	0.005
CEL1	7BCEFGHJK	ENG	GN1	HKE	555.665	551.782	379.932	223.533	230.43	275.816	208.713	290.183	501.677	718.558
CEL1	7BCEFGHJK	ENG	GT1	HKE		0.108	3.819	2.594	2.354	0.146	0.163	0.361	7.988	23.162
CEL1	7BCEFGHJK	ENG	LL1	HKE	23.032	4.585	36.032	500.48	150.276	0.002				603.873
CEL1	7BCEFGHJK	ENG	NONE	HKE										1.325
CEL1	7BCEFGHJK	ENG	OTTER	HKE	0.006	0.216		0.011		0.037	9.795	0.004	11.019	0.03
CEL1	7BCEFGHJK	ENG	PEL_SEINE	HKE							0.012			
CEL1	7BCEFGHJK	ENG	PEL_TRAWL	HKE						1.029	16.294	131.798	173.043	
CEL1	7BCEFGHJK	ENG	POTS	HKE				0.003	0.001					
CEL1	7BCEFGHJK	ENG	TR1	HKE	519.096	454.899	526.293	560.797	316.313	381.007	330.985	556.166	190.974	290.258
CEL1	7BCEFGHJK	ENG	TR2	HKE	38.249	50.393	28.712	43.707	27.772	35.155	17.232	9.825	11.532	17.393
CEL1	7BCEFGHJK	ENG	TR3	HKE		0.038				0.001				
CEL1	7BCEFGHJK	ESP	GN1	HKE									124.928	255.295
CEL1	7BCEFGHJK	ESP	LL1	HKE									4862.908	9137.952
CEL1	7BCEFGHJK	ESP	NONE	HKE									145.438	142.759
CEL1	7BCEFGHJK	ESP	OTTER	HKE									8.702	0.738
CEL1	7BCEFGHJK	ESP	TR1	HKE									893.977	1695.479
CEL1	7BCEFGHJK	ESP	TR2	HKE									93.11	166.873
CEL1	7BCEFGHJK	FRA	BT2	HKE			0.19							
CEL1	7BCEFGHJK	FRA	DREDGE	HKE	0.001			0.153	0.023	0.023	2.906	1.127	0.2	0.01
CEL1	7BCEFGHJK	FRA	GN1	HKE	1195.885	1122.62	959.959	785.821	480.665	480.665	3027.439	5237.306	6288.155	6805.203
CEL1	7BCEFGHJK	FRA	GT1	HKE	2.732	5.352	3.1	2.974	2.076	2.076	2.511	2.968	6.082	3.831
CEL1	7BCEFGHJK	FRA	LL1	HKE	0.813	24.829	213.576	352.977	278.113	278.113	584.36	605.747	1630.206	4063.54
CEL1	7BCEFGHJK	FRA	NONE	HKE				0.292						
CEL1	7BCEFGHJK	FRA	OTTER	HKE	0.993	2.994	0.034	0.04			8.86	3.628	1.823	20.31
CEL1	7BCEFGHJK	FRA	PEL_SEINE	HKE					0.044	0.044			10.465	13.84
CEL1	7BCEFGHJK	FRA	PEL_TRAWL	HKE	0.02	0.297	0.699	0.199	0.001	0.001	1.23	9.009	10.233	3.069
CEL1	7BCEFGHJK	FRA	POTS	HKE			0.028				1.16	0.655	0.013	0.85
CEL1	7BCEFGHJK	FRA	TR1	HKE	463.253	496.439	345.446	311.802	255.655	252.708	873.332	1046.783	1399.317	2000.66
CEL1	7BCEFGHJK	FRA	TR2	HKE	224.656	295.021	157.625	132.079	126.708	126.577	215.048	184.027	252.648	368.778
CEL1	7BCEFGHJK	FRA	TR3	HKE							0.317	4.164		
CEL1	7BCEFGHJK	GBJ	BT2	HKE	1.014	0.492								
CEL1	7BCEFGHJK	GBJ	TR2	HKE								0.164		
CEL1	7BCEFGHJK	GER	GN1	HKE							0.284			
CEL1	7BCEFGHJK	GER	PEL_TRAWL	HKE										9.4
CEL1	7BCEFGHJK	IRL	BEAM	HKE	14.02									
CEL1	7BCEFGHJK	IRL	BT1	HKE										
CEL1	7BCEFGHJK	IRL	BT2	HKE	41.71	47.19	47.03	49.23	25.24	22.78	39.52	33.73	39.98	46.49
CEL1	7BCEFGHJK	IRL	DEM_SEINE	HKE	13.25	0.78								
CEL1	7BCEFGHJK	IRL	DREDGE	HKE	0.66									
CEL1	7BCEFGHJK	IRL	GN1	HKE	205.59	219.56	236.2	373.29	437.14	683.33	543.74	560.53	435.34	376.49
CEL1	7BCEFGHJK	IRL	GT1	HKE				0.02	0.01	0.06	7.03	0.98	45.06	18.14
CEL1	7BCEFGHJK	IRL	LL1	HKE		1.38				1.05				
CEL1	7BCEFGHJK	IRL	NONE	HKE		1.78							61.52	20.87
CEL1	7BCEFGHJK	IRL	OTTER	HKE	33.96	1.19						0.9	0.87	
CEL1	7BCEFGHJK	IRL	PEL_SEINE	HKE	4.91	0.48								
CEL1	7BCEFGHJK	IRL	PEL_TRAWL	HKE	3.34	1.05	0.27	0.78	0.21	1.57	3.75	17.22	1.8	
CEL1	7BCEFGHJK	IRL	POTS	HKE	0.34	0.08		0.27	0.01	0.03	0.14	1.72	0.2	0.04
CEL1	7BCEFGHJK	IRL	TR1	HKE	328.31	410.94	450.56	535.5	496.8	408.99	753.33	851.81	862.06	980.64
CEL1	7BCEFGHJK	IRL	TR2	HKE	269.19	220.65	232.02	229.46	194.18	147.44	220.69	200.03	185.47	158.31
CEL1	7BCEFGHJK	IRL	TR3	HKE	0.27		0.45			0.01	0.41	2.39		
CEL1	7BCEFGHJK	NED	PEL_TRAWL	HKE						13	101	377	65	1
CEL1	7BCEFGHJK	NED	TR2	HKE								1		
CEL1	7BCEFGHJK	NIR	TR1	HKE			0.008			0.056	5.317	12.012	15.418	1.948
CEL1	7BCEFGHJK	NIR	TR2	HKE	1.795	1.335	0.379	0.153	0.559	0.661	1.797	0.01	0.377	0.795
CEL1	7BCEFGHJK	SCO	BT2	HKE						0.033				
CEL1	7BCEFGHJK	SCO	DREDGE	HKE		0.007	0.002			0.002				0.007
CEL1	7BCEFGHJK	SCO	GN1	HKE	152.658	14.77	2.481	0.191	1.264	251.548	88.215	0.119	0.802	207.396
CEL1	7BCEFGHJK	SCO	LL1	HKE	0.798	37.672	277.273	226.547	959.736	252.785	247.563	114.32	1029.592	976.259
CEL1	7BCEFGHJK	SCO	OTTER	HKE		3.462				0.003				
CEL1	7BCEFGHJK	SCO	TR1	HKE	246.739	421.695	300.53	226.268	211.934	223.324	195.181	111.486	141.548	23.938
CEL1	7BCEFGHJK	SCO	TR2	HKE	22.903	26.14	40.046	16.727	40.956	33.881	36.238	20.445	30.251	17.689

Table 5.6.3.1.4 Nephrops landings (t) by Member States and gears, 2004-2013.

ANNEX	REG_AREA	COUNTRY	REG_GEAR	SPECIES	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
CEL1	7BCEFGHJK	BEL	BEAM	NEP	0.05						0.055		0.272	
CEL1	7BCEFGHJK	BEL	BT2	NEP	0.572	1.043	0.721	1.46	0.388	2.645	4.285	4.349	5.002	4.942
CEL1	7BCEFGHJK	BEL	TR2	NEP	11.836	5.418	6.491	4.791	8.688	12.278	10.934	3.084	0.849	8.164
CEL1	7BCEFGHJK	ENG	BEAM	NEP		0.016								
CEL1	7BCEFGHJK	ENG	BT2	NEP	3.908	4.866	2.735	0.29	0.599	2.894	1.086	2.002	1.039	0.958
CEL1	7BCEFGHJK	ENG	GN1	NEP				0.003			0.014			
CEL1	7BCEFGHJK	ENG	GT1	NEP							0.002			0.045
CEL1	7BCEFGHJK	ENG	POTS	NEP		0.081	0.069				0.002			
CEL1	7BCEFGHJK	ENG	TR1	NEP	111.307	181.931	171.328	131.329	42.978	28.987	20.962	28.899	7.507	16.155
CEL1	7BCEFGHJK	ENG	TR2	NEP	5.049	3.1	39.212	13.198	9.772	13.98	44.438	0.024	0.308	0.223
CEL1	7BCEFGHJK	ESP	LL1	NEP										0.012
CEL1	7BCEFGHJK	ESP	OTTER	NEP									0.261	
CEL1	7BCEFGHJK	ESP	TR1	NEP									94.692	158.161
CEL1	7BCEFGHJK	ESP	TR2	NEP									35.983	32.902
CEL1	7BCEFGHJK	FRA	GN1	NEP	0.435	0.481	0.008	0.493	0.022	0.022	0.387	0.368	0.064	0.031
CEL1	7BCEFGHJK	FRA	GT1	NEP		0.185	0.305	0.443	0.18	0.18	2.1	0.47	0.333	
CEL1	7BCEFGHJK	FRA	LL1	NEP							0.14	0.153	0.08	
CEL1	7BCEFGHJK	FRA	NONE	NEP	0.003									
CEL1	7BCEFGHJK	FRA	OTTER	NEP		1.183					2.93	0.315	0.06	2.52
CEL1	7BCEFGHJK	FRA	PEL_TRAWL	NEP		2.081	0.95						0.23	
CEL1	7BCEFGHJK	FRA	POTS	NEP							0.09	0.131	0.352	0.01
CEL1	7BCEFGHJK	FRA	TR1	NEP	592.193	659.89	427.422	282.523	295.75	295.75	826.8	489.962	369.424	587.77
CEL1	7BCEFGHJK	FRA	TR2	NEP	41.307	76.376	26.136	20.807	20.817	20.792	13.77	23.821	5.116	3.63
CEL1	7BCEFGHJK	FRA	TR3	NEP							0.19	0.145		
CEL1	7BCEFGHJK	IRL	BEAM	NEP	49.03	6.42								
CEL1	7BCEFGHJK	IRL	BT1	NEP										
CEL1	7BCEFGHJK	IRL	BT2	NEP	90.9	98.56	89.19	85.73	34.23	27.8	17.25	17.5	4.17	5.96
CEL1	7BCEFGHJK	IRL	DREDGE	NEP	4.13									0.16
CEL1	7BCEFGHJK	IRL	GN1	NEP	16.18	14.52	5.05			4 2.31	0.09	0.05	3.12	1.79
CEL1	7BCEFGHJK	IRL	GT1	NEP								1.69	0.02	0.24
CEL1	7BCEFGHJK	IRL	LL1	NEP							0.22			
CEL1	7BCEFGHJK	IRL	NONE	NEP		5.08			0.03				390.2	166.16
CEL1	7BCEFGHJK	IRL	OTTER	NEP	259.82	12.39	12.73	1.44	0.1	0.32			0.61	0.48
CEL1	7BCEFGHJK	IRL	PEL_SEINE	NEP	2.6	0.08								
CEL1	7BCEFGHJK	IRL	PEL_TRAWL	NEP	49.48	35.52	1.61	8.77	2.1	18.89	2.99	43.28	36.04	13.58
CEL1	7BCEFGHJK	IRL	POTS	NEP	10.35	3.8		3.02	4.45	6.94	10.09	8.36	6.12	10.21
CEL1	7BCEFGHJK	IRL	TR1	NEP	536.04	761.08	727.6	990.33	1319.37	1790.74	1287.91	1380.99	1379.24	1596.32
CEL1	7BCEFGHJK	IRL	TR2	NEP	2625.31	3800.2	3173.73	5027.62	4542.47	3424.38	4432.74	3196.14	4842.15	4555.17
CEL1	7BCEFGHJK	IRL	TR3	NEP			2.06				1.15			1.49
CEL1	7BCEFGHJK	NED	BT2	NEP										
CEL1	7BCEFGHJK	NIR	TR1	NEP		0.608							0.363	2.89
CEL1	7BCEFGHJK	NIR	TR2	NEP	34.58	65.012	58.484	46.887	345.345	328.437	328.044	7.587	32.977	83.549
CEL1	7BCEFGHJK	SCO	GN1	NEP		0.014								
CEL1	7BCEFGHJK	SCO	OTTER	NEP									26.352	
CEL1	7BCEFGHJK	SCO	TR1	NEP	34.521	84.973	60.293	37.197	81.403	45.585	91.015	45.48	64.209	63.821
CEL1	7BCEFGHJK	SCO	TR2	NEP	23.595	121.514	135.467	168.553	102.687	181.398	82.982	131.772	104.406	117.218

Table 5.6.3.1.5 Plaice landings (t) by Member States and gears, 2004-2013.

ANNEX	REG_AREA	COUNTRY	REG_GEAR	SPECIES	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
CEL1	7BCEFGHJK	BEL	BEAM	PLE	5.966	1.653	0.322	0.727		1.606	0.405	1.068	0.522	0.137
CEL1	7BCEFGHJK	BEL	BT1	PLE					22.773					0.133
CEL1	7BCEFGHJK	BEL	BT2	PLE	303.689	209.683	189.647	227.791	172.734	190.624	175.545	292.816	289.916	230.902
CEL1	7BCEFGHJK	BEL	DREDGE	PLE						0.177				
CEL1	7BCEFGHJK	BEL	OTTER	PLE										
CEL1	7BCEFGHJK	BEL	TR1	PLE										0.091
CEL1	7BCEFGHJK	BEL	TR2	PLE	6.188	35.054	54.046	54.71	79.742	79.736	62.428	58.25	47.275	49.463
CEL1	7BCEFGHJK	ENG	BEAM	PLE	1.177	1.867	1.321	1.667	0.201	0.033	0.457	0.687	0.457	1.05
CEL1	7BCEFGHJK	ENG	BT1	PLE	0.341									
CEL1	7BCEFGHJK	ENG	BT2	PLE	757.32	753.854	730.124	524.084	509.727	579.732	608.543	629.783	688.766	722.331
CEL1	7BCEFGHJK	ENG	DREDGE	PLE	5.706	9.803	6.059	2.392	1.581	2.165	3.509	6.823	4.3	12.246
CEL1	7BCEFGHJK	ENG	GN1	PLE	2.526	1.446	1.492	1.271	1.052	4.062	3.998	3.909	4.54	2.587
CEL1	7BCEFGHJK	ENG	GT1	PLE	0.005	0.081	0.078	0.12	0.165	0.015	0.103	0.14	0.218	0.581
CEL1	7BCEFGHJK	ENG	LL1	PLE	0.039	0.001	0.008	0.071	0.089	0.024	0.064	0.105	0.019	0.033
CEL1	7BCEFGHJK	ENG	NONE	PLE										0.079
CEL1	7BCEFGHJK	ENG	OTTER	PLE	0.094	0.612	0.248	0.533	0.168	0.426	0.797	0.212	0.439	0.651
CEL1	7BCEFGHJK	ENG	PEL_SEINE	PLE							0.053			
CEL1	7BCEFGHJK	ENG	PEL_TRAWL	PLE		0.021		0.01	0.003	0.019	0.004	0.005		0.001
CEL1	7BCEFGHJK	ENG	POTS	PLE	0.001	0.001	0.082	0.037	0.064	0.006	0.05	0.011	0.018	0.045
CEL1	7BCEFGHJK	ENG	TR1	PLE	10.469	5.013	2.544	3.301	6.439	14.276	21.694	65.907	52.224	43.547
CEL1	7BCEFGHJK	ENG	TR2	PLE	136.433	131.577	185.253	123.196	132.603	129.015	201.768	207.983	183.777	171.193
CEL1	7BCEFGHJK	ENG	TR3	PLE		0.255				0.021	0.027			
CEL1	7BCEFGHJK	FRA	BEAM	PLE	0.17	2.043	0.022				0.34	0.045	0.02	
CEL1	7BCEFGHJK	FRA	BT1	PLE									0.1	
CEL1	7BCEFGHJK	FRA	BT2	PLE	34.04	14.075	6.08	5.19	5.244	5.134	26.295	25.507	10.416	5.62
CEL1	7BCEFGHJK	FRA	DREDGE	PLE	3.374	4.026	3.407	5.103	5.284	5.278	1.21	2.05	2.165	1.29
CEL1	7BCEFGHJK	FRA	GN1	PLE	5.665	6.343	2.089	0.828	1.131	1.131	0.546	1.585	1.928	0.107
CEL1	7BCEFGHJK	FRA	GT1	PLE	16.117	22.067	12.325	7.549	3.202	3.202	7.164	8.903	6.452	3.299
CEL1	7BCEFGHJK	FRA	LL1	PLE	0.001	0.014	0.066	0.004	0.006	0.006	0.003	0.021	0.014	0.022
CEL1	7BCEFGHJK	FRA	NONE	PLE	0.614	0.385		0.02	0.007	0.007				
CEL1	7BCEFGHJK	FRA	OTTER	PLE	4.569	12.95	3.446	2.279	0.617	0.595	3.107	1.924	1.849	1.162
CEL1	7BCEFGHJK	FRA	PEL_SEINE	PLE				0.022					4.604	3.44
CEL1	7BCEFGHJK	FRA	PEL_TRAWL	PLE	0.012	0.081	0.109	0.069	0.046	0.046	0.753	1.831	1.601	0.938
CEL1	7BCEFGHJK	FRA	POTS	PLE		0.01		0.114			0.14	0.342	0.131	0.04
CEL1	7BCEFGHJK	FRA	TR1	PLE	112.51	76.909	74.62	63.791	88.882	88.428	125.246	119.066	132.162	114.9
CEL1	7BCEFGHJK	FRA	TR2	PLE	120.605	127.629	132.557	138.818	131.548	131.12	105.958	129.731	109.715	133.496
CEL1	7BCEFGHJK	FRA	TR3	PLE	0.032		0.098	0.002			0.56	1.483	0.272	0.5
CEL1	7BCEFGHJK	GBG	TR2	PLE					0.008	0.001	0.08	0.077	3.652	0.142
CEL1	7BCEFGHJK	GBJ	BEAM	PLE	0.2									
CEL1	7BCEFGHJK	GBJ	BT2	PLE	43.216	9.946								
CEL1	7BCEFGHJK	GBJ	TR2	PLE		0.019	0.575	0.468	0.123	0.12	0.226	0.44	0.145	0.019
CEL1	7BCEFGHJK	IRL	BEAM	PLE	1.79									
CEL1	7BCEFGHJK	IRL	BT2	PLE	10.47	13.1	19.39	26.79	15.54	9.94	7.77	7.5	11.95	15.39
CEL1	7BCEFGHJK	IRL	DEM_SEINE	PLE	0.57	0.02								
CEL1	7BCEFGHJK	IRL	DREDGE	PLE	0.5	0.46	0.04	0.03						
CEL1	7BCEFGHJK	IRL	GN1	PLE	0.72	0.27	0.35	0.57	0.9	1.81	1.93	2.1	1.65	0.01
CEL1	7BCEFGHJK	IRL	GT1	PLE				0.12		0.05	0.16	0.32	0.07	0.2
CEL1	7BCEFGHJK	IRL	LL1	PLE										0.02
CEL1	7BCEFGHJK	IRL	NONE	PLE					0.02				3.05	1
CEL1	7BCEFGHJK	IRL	OTTER	PLE	10.63	0.58		0.01			0.07		0.33	0.12
CEL1	7BCEFGHJK	IRL	PEL_SEINE	PLE	1.26									
CEL1	7BCEFGHJK	IRL	PEL_TRAWL	PLE	0.25	0.04	0.06			0.93	0.59	1.77	0.23	0.27
CEL1	7BCEFGHJK	IRL	POTS	PLE	0.08		0.15	0.25	2.98	12.52	1.77	0.68	5.09	0.41
CEL1	7BCEFGHJK	IRL	TR1	PLE	21.64	21.4	16.04	29.26	42.92	60.25	66.11	89.43	111.2	60.42
CEL1	7BCEFGHJK	IRL	TR2	PLE	125.29	123.4	96.36	95.05	92.79	91.1	77.7	58.2	61.44	45.41
CEL1	7BCEFGHJK	IRL	TR3	PLE	0.21	0.08	1.25	1.6	0.53	4.49	0.68	0.13	1.13	0.29
CEL1	7BCEFGHJK	NED	BT2	PLE								2		
CEL1	7BCEFGHJK	NED	LL1	PLE										
CEL1	7BCEFGHJK	NED	TR1	PLE										
CEL1	7BCEFGHJK	NED	TR2	PLE						2	1	3	3	2
CEL1	7BCEFGHJK	NIR	TR1	PLE								0.001	0.354	0.17
CEL1	7BCEFGHJK	NIR	TR2	PLE	0.586	0.217	0.496		0.213	0.953	0.716	0.034	0.023	0.243
CEL1	7BCEFGHJK	SCO	BT2	PLE				0.096		0.045				
CEL1	7BCEFGHJK	SCO	DREDGE	PLE	0.044	0.121	0.21	0.036	1.037	0.866	0.267	0.014	0.061	0.044
CEL1	7BCEFGHJK	SCO	OTTER	PLE						0.085			0.048	
CEL1	7BCEFGHJK	SCO	TR1	PLE				0.433		3.12	0.555	6.073	7.391	5.316
CEL1	7BCEFGHJK	SCO	TR2	PLE	0.529		0.278	0.129	0.027	0.938	1.023	1.989	2.743	7.81

Table 5.6.3.1.6 Sole landings (t) by Member States and gears, 2004-2013.

ANNEX	REG_AREA	COUNTRY	REG_GEAR	SPECIES	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
CEL1	7BCEFGHJK	BEL	BEAM	SOL	1.334	2.138	5.351	21.223	2.563	5.186	12.156	4.709	6.293	1.968
CEL1	7BCEFGHJK	BEL	BT1	SOL										1.475
CEL1	7BCEFGHJK	BEL	BT2	SOL	856.256	733.225	590.316	570.521	443.383	458.939	561.876	718.126	825.918	770.642
CEL1	7BCEFGHJK	BEL	DREDGE	SOL					0.086	0.96	0.797	0.342	1.232	0.062
CEL1	7BCEFGHJK	BEL	OTTER	SOL										
CEL1	7BCEFGHJK	BEL	TR2	SOL	15.101	21.575	44.565	46.384	50.121	78.46	80.27	81.749	60.791	45.12
CEL1	7BCEFGHJK	ENG	BEAM	SOL	0.104	2.245	1.044	0.323	0.396	0.516	0.287	0.468	0.245	0.598
CEL1	7BCEFGHJK	ENG	BT1	SOL	0.604									
CEL1	7BCEFGHJK	ENG	BT2	SOL	415.716	696.347	732.869	729.899	635.432	528.73	501.246	543.711	594.731	646.716
CEL1	7BCEFGHJK	ENG	DREDGE	SOL	6.831	16.786	16.918	15.752	10.213	9.498	19.111	22.928	21.057	20.742
CEL1	7BCEFGHJK	ENG	GN1	SOL	2.095	2.291	1.906	6.033	6.996	10.558	4.34	5.816	8.478	3.481
CEL1	7BCEFGHJK	ENG	GT1	SOL	0.014	0.058	0.022	0.047	0.05	0.002	0.004		0.003	0.01
CEL1	7BCEFGHJK	ENG	LL1	SOL	0.005	0.004		0.006	0.03	0.004	0.004	0.002	0.002	0.002
CEL1	7BCEFGHJK	ENG	NONE	SOL										0.077
CEL1	7BCEFGHJK	ENG	OTTER	SOL	0.007	0.179	0.028	0.091	0.032	0.139	0.056	0.074	0.362	0.064
CEL1	7BCEFGHJK	ENG	PEL_SEINE	SOL							0.003			
CEL1	7BCEFGHJK	ENG	PEL_TRAWL	SOL			0.001		0.003					
CEL1	7BCEFGHJK	ENG	POTS	SOL	0.004	0.001	0.043	0.157	0.099	0.018		0.012	0.165	0.052
CEL1	7BCEFGHJK	ENG	TR1	SOL	3.008	3.097	0.94	1.248	4.01	5.574	8.779	9.644	9.828	10.567
CEL1	7BCEFGHJK	ENG	TR2	SOL	22.818	33.967	45.303	39.947	34.615	25.3	24.599	24.761	30.878	33.279
CEL1	7BCEFGHJK	ENG	TR3	SOL		0.096			0.001	0.012				
CEL1	7BCEFGHJK	FRA	BEAM	SOL	0.74	11.249	0.29				0.67	0.245	0.07	
CEL1	7BCEFGHJK	FRA	BT1	SOL									0.023	
CEL1	7BCEFGHJK	FRA	BT2	SOL	43.071	32.089	30.695	32.739	33.296	31.846	63.28	62.192	38.23	22.81
CEL1	7BCEFGHJK	FRA	DREDGE	SOL	9.48	10.45	6.765	12.108	19.444	19.331	3.147	6.084	7.148	2.193
CEL1	7BCEFGHJK	FRA	GN1	SOL	21.021	15.151	4.435	6.146	8.258	8.258	6.08	8.333	7.538	1.937
CEL1	7BCEFGHJK	FRA	GT1	SOL	43.097	77.496	40.786	47.242	33.445	33.445	24.284	55.438	49.659	26.846
CEL1	7BCEFGHJK	FRA	LL1	SOL	0.006	0.017	0.148	0.022	0.005	0.005	0.029	0.177	0.021	0.02
CEL1	7BCEFGHJK	FRA	NONE	SOL	2.234	3.999	3.793	0.046	0.057	0.057				
CEL1	7BCEFGHJK	FRA	OTTER	SOL	12.092	39.663	14.883	12.406	3.558	3.558	6.262	5.261	4.134	4.65
CEL1	7BCEFGHJK	FRA	PEL_SEINE	SOL									0.924	2.48
CEL1	7BCEFGHJK	FRA	PEL_TRAWL	SOL	0.377	0.249	0.295	0.081	0.206	0.206	0.928	1.834	1.284	1.385
CEL1	7BCEFGHJK	FRA	POTS	SOL	0.442	2.7	0.206	1.078	0.002	0.002	10.45	4.697	3.008	0.531
CEL1	7BCEFGHJK	FRA	TR1	SOL	72.748	62.076	62.621	57.529	56.207	56.195	62.455	79.139	81.782	73.112
CEL1	7BCEFGHJK	FRA	TR2	SOL	171.595	211.161	216.443	222.952	179.952	178.252	152.449	175.437	133.249	156.966
CEL1	7BCEFGHJK	FRA	TR3	SOL	0.17		0.23	0.056	0.041	0.041		1 1.35	0.76	0.61
CEL1	7BCEFGHJK	GBG	TR2	SOL					0.013	0.001	0.128	0.062	0.401	0.007
CEL1	7BCEFGHJK	GBJ	BEAM	SOL	0.088									
CEL1	7BCEFGHJK	GBJ	BT2	SOL	57.523	43.182								
CEL1	7BCEFGHJK	GBJ	TR1	SOL									0.018	
CEL1	7BCEFGHJK	GBJ	TR2	SOL			0.453	0.3	0.235	0.173	0.235			0.109
CEL1	7BCEFGHJK	IOM	DREDGE	SOL				0.012						
CEL1	7BCEFGHJK	IRL	BEAM	SOL	6.42	0.04								
CEL1	7BCEFGHJK	IRL	BT1	SOL										
CEL1	7BCEFGHJK	IRL	BT2	SOL	40.13	45.49	38.83	21.37	16.42	12.84	11.25	7.38	11.01	16.52
CEL1	7BCEFGHJK	IRL	DEM_SEINE	SOL		0.11								
CEL1	7BCEFGHJK	IRL	DREDGE	SOL	0.92	1.12	0.05	0.08						
CEL1	7BCEFGHJK	IRL	GN1	SOL	0.67	0.09	1.46	0.3	0.37	1.14	1.04	0.36	0.52	0.21
CEL1	7BCEFGHJK	IRL	GT1	SOL			0.03	0.08			0.04	0.38		
CEL1	7BCEFGHJK	IRL	LL1	SOL										0.02
CEL1	7BCEFGHJK	IRL	NONE	SOL					0.06				7.38	3.03
CEL1	7BCEFGHJK	IRL	OTTER	SOL	16.36	1.74	0.07	0.04		0.04			0.66	
CEL1	7BCEFGHJK	IRL	PEL_SEINE	SOL	0.79									
CEL1	7BCEFGHJK	IRL	PEL_TRAWL	SOL	0.62	0.06	0.29	0.12		1.55	0.19	0.63	0.07	
CEL1	7BCEFGHJK	IRL	POTS	SOL	0.05		0.08	0.02	0.01		0.24		0.02	
CEL1	7BCEFGHJK	IRL	TR1	SOL	16.51	21.34	10.45	14.35	21.31	17.81	32.2	38.73	46.47	49.58
CEL1	7BCEFGHJK	IRL	TR2	SOL	109.47	99.68	82.3	106.74	93.52	98.94	88.23	70.03	85.72	77.9
CEL1	7BCEFGHJK	IRL	TR3	SOL	0.08		0.08	0.01	0.03	1.42	0.41	0.21	0.58	0.17
CEL1	7BCEFGHJK	NED	BT2	SOL								1		
CEL1	7BCEFGHJK	NED	DREDGE	SOL										
CEL1	7BCEFGHJK	NIR	TR1	SOL								0.004	0.028	0.096
CEL1	7BCEFGHJK	NIR	TR2	SOL	0.593	0.616	0.285	0.151	1.11	2.021	1.682	0.058	0.283	0.552
CEL1	7BCEFGHJK	SCO	DREDGE	SOL	1.12	2.856	4.467	3.835	9.051	2.014	0.972	0.429	0.531	1.475
CEL1	7BCEFGHJK	SCO	OTTER	SOL						0.001				
CEL1	7BCEFGHJK	SCO	TR1	SOL	0.05					1.197	0.532	2.089	2.919	1.953
CEL1	7BCEFGHJK	SCO	TR2	SOL	0.151					0.074		0.103	0.211	0.294

Table 5.6.3.1.7 (t) Whiting landings by Member States and gears, 2004-2013.

ANNEX	REG_AREA	COUNTRY	REG_GEAR	SPECIES	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
CEL1	7BCEFGHJK	BEL	BEAM	WHG	0.602	0.129	0.393	0.244		0.073		0.035	0.46	0.39
CEL1	7BCEFGHJK	BEL	BT1	WHG										0.165
CEL1	7BCEFGHJK	BEL	BT2	WHG	139.545	180.594	57.864	71.047	75.203	42.184	66.059	68.715	97.093	145.554
CEL1	7BCEFGHJK	BEL	OTTER	WHG										
CEL1	7BCEFGHJK	BEL	TR1	WHG										0.135
CEL1	7BCEFGHJK	BEL	TR2	WHG	35.829	36.866	69.696	54.817	44.728	45.048	34.376	30.505	70.741	79.33
CEL1	7BCEFGHJK	ENG	BEAM	WHG	0.004	0.085	0.13	0.207		0.022	0.072	0.164	0.046	0.003
CEL1	7BCEFGHJK	ENG	BT1	WHG	0.019									
CEL1	7BCEFGHJK	ENG	BT2	WHG	72.66	66.993	49.449	52.117	58.583	46.8	40.276	41.463	47.179	40.829
CEL1	7BCEFGHJK	ENG	DREDGE	WHG	0.018	0.004	0.023	0.032		0.014	0.132	0.055	0.012	0.676
CEL1	7BCEFGHJK	ENG	GN1	WHG	18.99	25.149	23.317	15.319	8.072	5.71	6.182	20.381	17.361	13.774
CEL1	7BCEFGHJK	ENG	GT1	WHG	0.126	0.162	0.325	0.29	0.101	0.073	0.02	0.209	0.744	0.616
CEL1	7BCEFGHJK	ENG	LL1	WHG	3.131	1.276	1.999	0.823	0.254	0.007	1.513	1.529	1.353	0.777
CEL1	7BCEFGHJK	ENG	NONE	WHG										0.145
CEL1	7BCEFGHJK	ENG	OTTER	WHG	0.734	0.117	0.159	1.345	0.164	1.372	0.866	0.172	0.903	25.159
CEL1	7BCEFGHJK	ENG	PEL_SEINE	WHG							0.681			
CEL1	7BCEFGHJK	ENG	PEL_TRAWL	WHG	3.805	1.985	3.432	4.157	9.706	3.961	12.237	13.65	51.618	21.948
CEL1	7BCEFGHJK	ENG	POTS	WHG	0.106	0.003	0.014	0.015	0.007	0.002		0.004	0.456	0.018
CEL1	7BCEFGHJK	ENG	TR1	WHG	40.664	52.076	23.33	26.198	42.817	81.455	106.116	176.718	147.656	131.212
CEL1	7BCEFGHJK	ENG	TR2	WHG	337.564	268.205	210.906	337.838	344.46	467.263	393.699	248.846	257.245	340.635
CEL1	7BCEFGHJK	ENG	TR3	WHG	0.03	0.226		0.054	0.001	1.512	0.749		10.098	3.71
CEL1	7BCEFGHJK	ESP	TR1	WHG									3.643	2.396
CEL1	7BCEFGHJK	ESP	TR2	WHG									0.163	1.799
CEL1	7BCEFGHJK	FRA	BT2	WHG	0.015		0.665	0.019	0.003	0.003	0.001	0.025		0.02
CEL1	7BCEFGHJK	FRA	DREDGE	WHG	3.209	2.13	1.914	7.12	3.09	3.087	0.64	2.636	1.311	0.38
CEL1	7BCEFGHJK	FRA	GN1	WHG	5.112	7.595	3.383	2.688	4.468	4.468	8.586	0.396	5.453	1.229
CEL1	7BCEFGHJK	FRA	GT1	WHG	0.062	1.088	0.625	3.869	0.287	0.287	2.39	5.541	4.241	3.324
CEL1	7BCEFGHJK	FRA	LL1	WHG	2.192	3.526	8.959	6.452	1.164	1.164	1.541	6.356	3.322	7.02
CEL1	7BCEFGHJK	FRA	NONE	WHG	0.02	0.015			0.053	0.053				
CEL1	7BCEFGHJK	FRA	OTTER	WHG	20.238	14.246	2.58	2.281	0.525	0.525	8.093	5.972	0.239	0.202
CEL1	7BCEFGHJK	FRA	PEL_SEINE	WHG									31.79	50.63
CEL1	7BCEFGHJK	FRA	PEL_TRAWL	WHG	2.523	0.141	1.701	1.011	1.624	1.624	2.615	12.424	11.79	27.306
CEL1	7BCEFGHJK	FRA	POTS	WHG			0.001		1.371	1.371	12.87	28.08	11.94	7.69
CEL1	7BCEFGHJK	FRA	TR1	WHG	3078.445	4025.512	3032.151	2007.227	1327.353	1320.829	1731.81	2243.936	1949.018	2032.5
CEL1	7BCEFGHJK	FRA	TR2	WHG	1137.358	1528.415	1006.229	1037.402	1076.409	1075.558	936.476	989.308	888.952	1242.995
CEL1	7BCEFGHJK	FRA	TR3	WHG	0.001		0.004				1.64	7.664		0.11
CEL1	7BCEFGHJK	GBG	PEL_TRAWL	WHG						0.003				
CEL1	7BCEFGHJK	GBG	TR2	WHG					0.004	0.008	0.008	0.005	2.741	0.222
CEL1	7BCEFGHJK	GBJ	BEAM	WHG	0.005									
CEL1	7BCEFGHJK	GBJ	BT2	WHG	4.506	1.685								
CEL1	7BCEFGHJK	GBJ	TR2	WHG			0.144	0.305	0.067	0.046	0.177	0.131	0.051	0.024
CEL1	7BCEFGHJK	IRL	BEAM	WHG	8.24									
CEL1	7BCEFGHJK	IRL	BT1	WHG										
CEL1	7BCEFGHJK	IRL	BT2	WHG	35.12	30.08	22.26	24.24	4.01	2.87	4.58	15.12	12.09	11.13
CEL1	7BCEFGHJK	IRL	DEM_SEINE	WHG	54.4	9.56								
CEL1	7BCEFGHJK	IRL	DREDGE	WHG	2.16	0.47	0.09	0.12						
CEL1	7BCEFGHJK	IRL	GN1	WHG	107.67	60.45	16.07	19.22	23.55	20.51	22.63	35.59	83.09	149.69
CEL1	7BCEFGHJK	IRL	GT1	WHG				0.06		0.02	0.08	0.19	0.4	3.58
CEL1	7BCEFGHJK	IRL	LL1	WHG		0.25						0.16		
CEL1	7BCEFGHJK	IRL	NONE	WHG		4.77							111.97	32.98
CEL1	7BCEFGHJK	IRL	OTTER	WHG	414.99	2.34	0.3			0.44	0.64		1.81	10.59
CEL1	7BCEFGHJK	IRL	PEL_SEINE	WHG	79.09	8.68								
CEL1	7BCEFGHJK	IRL	PEL_TRAWL	WHG	43.05	0.04	13.25	0.35		2.88	6.32	44.71	25.14	55.9
CEL1	7BCEFGHJK	IRL	POTS	WHG	2.04	0.31		0.3		0.31	0.03	1.15	0.56	
CEL1	7BCEFGHJK	IRL	TR1	WHG	885.29	1013.57	1121.76	1188.42	1166.76	1737.37	2508.93	3211.14	4406.65	4343.42
CEL1	7BCEFGHJK	IRL	TR2	WHG	2641.98	4617.16	3333.13	3657.24	1208.32	1088.57	1907.26	1534.07	1273.4	2364.61
CEL1	7BCEFGHJK	IRL	TR3	WHG	0.39	0.28	0.6	0.19	0.05	0.6	0.64	0.26	0.43	0.56
CEL1	7BCEFGHJK	NED	BT2	WHG										
CEL1	7BCEFGHJK	NED	LL1	WHG										
CEL1	7BCEFGHJK	NED	PEL_TRAWL	WHG							795		3	2
CEL1	7BCEFGHJK	NED	TR1	WHG							3		2	1
CEL1	7BCEFGHJK	NED	TR2	WHG	17	59	34	62	25	24	73	152	131	85
CEL1	7BCEFGHJK	NIR	TR1	WHG			13.3		0.2		29.179	24.51	27.706	134.947
CEL1	7BCEFGHJK	NIR	TR2	WHG	15.628	10.263	8.599	0.685	10.019	12.803	16.655	1.13	3.405	19.903
CEL1	7BCEFGHJK	SCO	BT2	WHG				1.22		0.245				
CEL1	7BCEFGHJK	SCO	DREDGE	WHG		0.001				0.002				
CEL1	7BCEFGHJK	SCO	GN1	WHG	0.079									
CEL1	7BCEFGHJK	SCO	LL1	WHG					0.597					2.16
CEL1	7BCEFGHJK	SCO	OTTER	WHG						0.028			0.042	
CEL1	7BCEFGHJK	SCO	PEL_TRAWL	WHG	5.857							0.165		
CEL1	7BCEFGHJK	SCO	TR1	WHG	4.55		0.237	0.096	4.457	45.533	21.356	28.504	54.738	21.899
CEL1	7BCEFGHJK	SCO	TR2	WHG	9.885	0.051	5.771	3.177	2.179	16.058	13.062	58.702	10.143	20.554
CEL1	7BCEFGHJK	SCO	TR3	WHG	0.04									

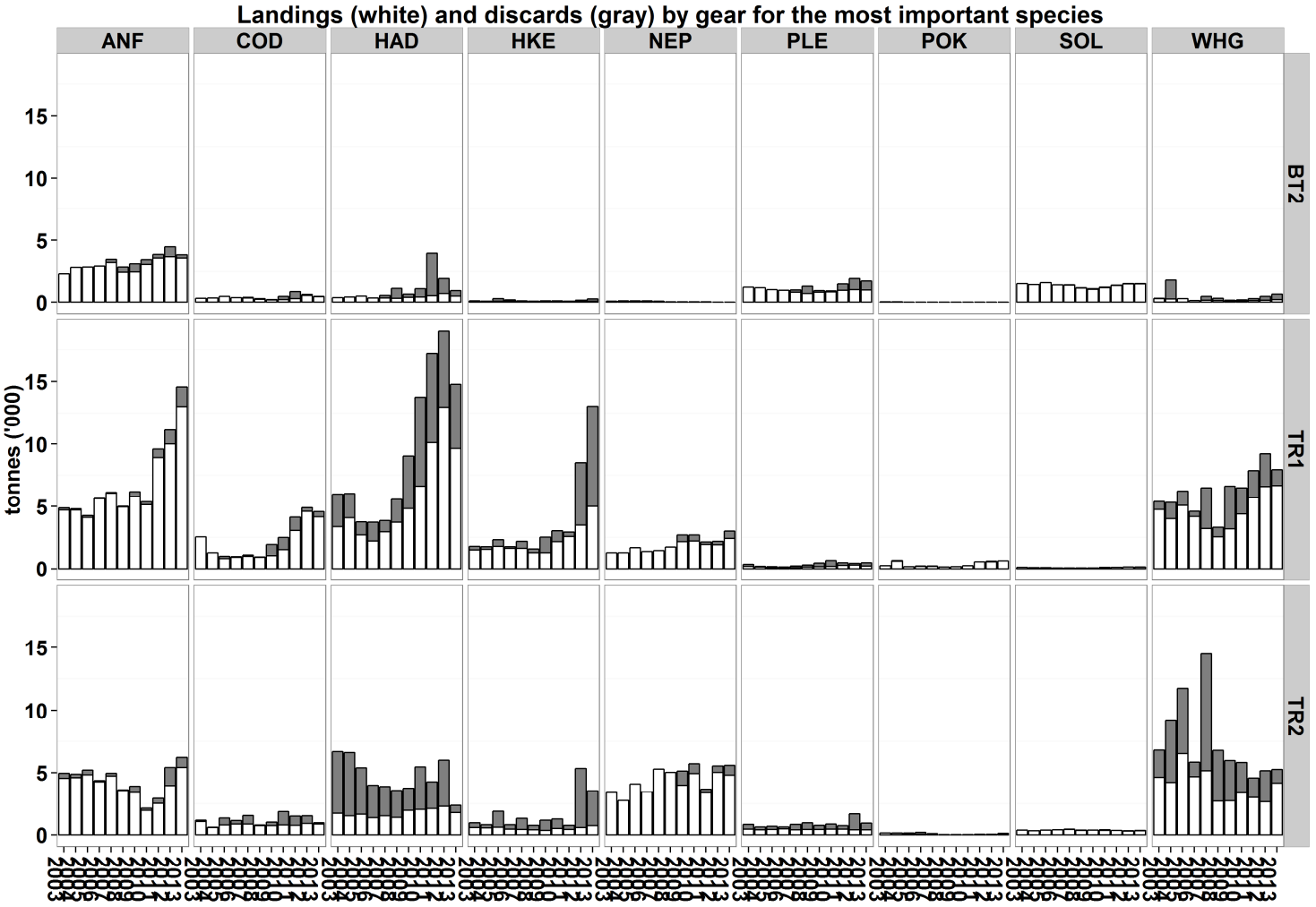


Figure 5.6.3.1.1 Landings and discards of the main species by active gears (BT2, TR1, TR2) in the wider Celtic Sea (Cel1; 7bcefghjk). 2003-2013.

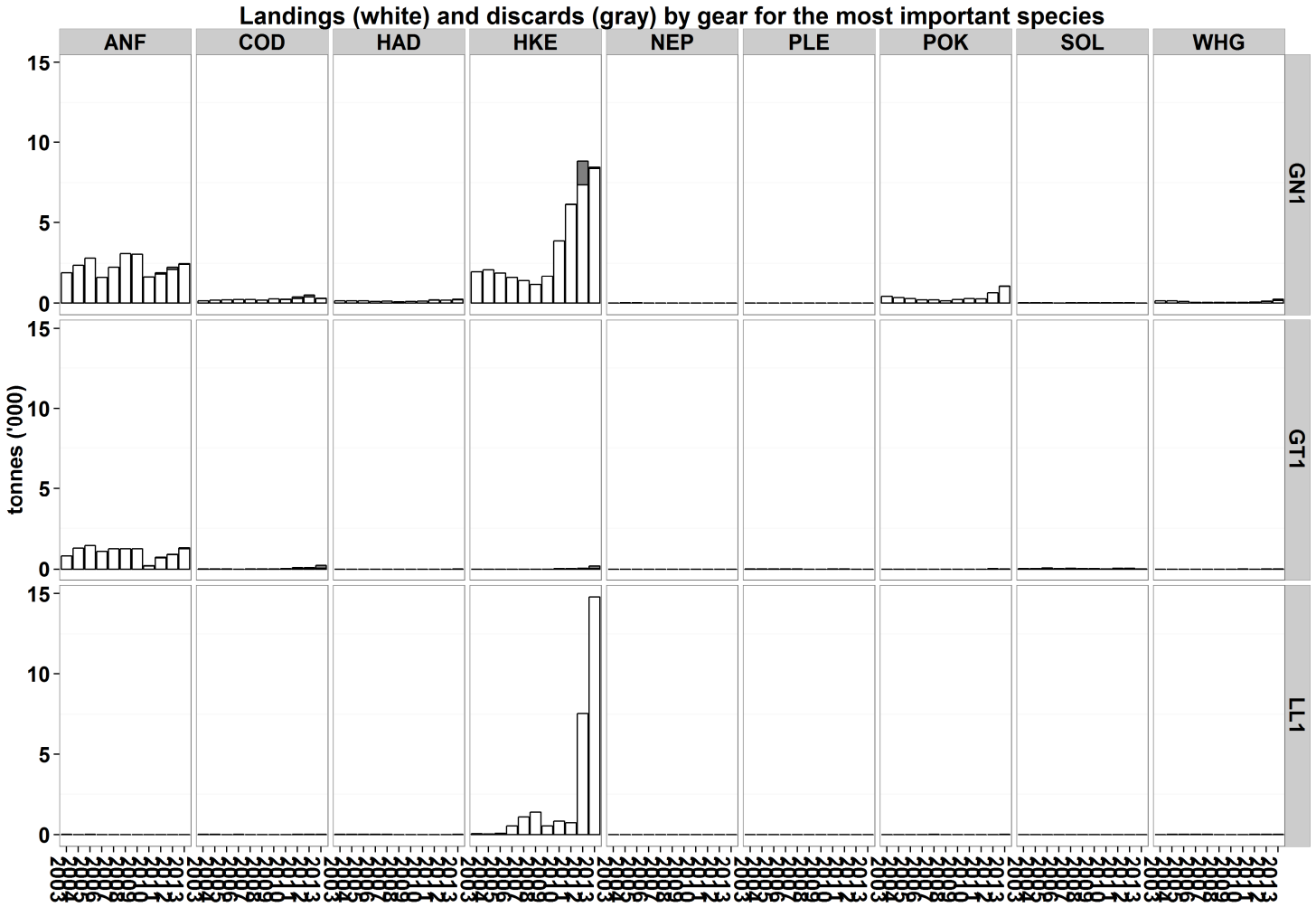


Figure 5.6.3.1.2. Landings and discards of the main species by passive gears (GN1, GT1, LL1) in the wider Celtic Sea (Cel1; 7bcefghjk). 2003-2013.

Table 5.6.3.1.8. Discard rate and associated coverage index for Anglerfish, Haddock, Hake, *Nephrops*, Plaice, Sole and whiting in Cel1 (7bcefghjk) by Gear and Special condition as defined under the cod management plan. A, ≥ 66% of landings have associated discard sampling, B, ≥ 33% < 66% of landings have associated discard sampling, C < 33% of landings have associated discard sampling. 2003-2012. Gear/Special condition combinations without discard data omitted.

annex	reg_area	reg_gear	specon	species	2004 R	2005 R	2006 R	2007 R	2008 R	2009 R	2010 R	2011 R	2012 R	2013 R	2004 DC	2005 DC	2006 DC	2007 DC	2008 DC	2009 DC	2010 DC	2011 DC	2012 DC	2013 DC
CEL1	7BCEFGHJK	BEAM	NONE	HAD							0.484										A			
CEL1	7BCEFGHJK	BT2	NONE	ANF				0.072	0.145	0.209	0.111	0.071	0.177	0.065				B	C	C	B	A	A	A
CEL1	7BCEFGHJK	BT2	NONE	HAD	0.022			0.364	0.723	0.414	0.626	0.874	0.632	0.474	C	C	C	A	A	B	B	A	A	A
CEL1	7BCEFGHJK	BT2	NONE	HKE	0.042	0.737	0.573	0.351	0.462	0.458	0.245	0.270	0.617	0.722	C	C	C	A	A	B	C	B	A	A
CEL1	7BCEFGHJK	BT2	NONE	PLE	0.011			0.192	0.452	0.157	0.096	0.339	0.470	0.424	B	B	A	A	A	B	A	A	A	A
CEL1	7BCEFGHJK	BT2	NONE	SOL	0.003		0.000	0.015	0.009	0.031	0.054	0.020	0.008	0.018	C	C	B	A	A	A	A	A	B	A
CEL1	7BCEFGHJK	BT2	NONE	WHG	0.858	0.004		0.674	0.550	0.379	0.399	0.544	0.666	0.686	C	C	C	A	A	A	A	A	A	A
CEL1	7BCEFGHJK	DREDGE	NONE	ANF							0.092	0.144	0.383	0.460							C	C	B	B
CEL1	7BCEFGHJK	DREDGE	NONE	HKE								0.088										C		
CEL1	7BCEFGHJK	DREDGE	NONE	PLE							0.096	0.057	0.269	0.348							C	C	C	C
CEL1	7BCEFGHJK	DREDGE	NONE	SOL									0.004									C	C	C
CEL1	7BCEFGHJK	GN1	NONE	ANF						0.001	0.030	0.036	0.061	0.013	C	C	C	C	C	C	C	C	C	C
CEL1	7BCEFGHJK	GN1	NONE	HAD						0.003	0.014	0.037	0.019	0.087	C	C	C	C	C	B	B	B	C	C
CEL1	7BCEFGHJK	GN1	NONE	HKE						0.014	0.000	0.005	0.168	0.011	C	C	C	C	C	C	C	C	C	C
CEL1	7BCEFGHJK	GN1	NONE	PLE								0.046	0.007	0.614	C	C			C	C	C	C	C	C
CEL1	7BCEFGHJK	GN1	NONE	SOL						0.006			0.020	0.020		C			C	C	C	C	C	C
CEL1	7BCEFGHJK	GN1	NONE	WHG				0.100		0.150	0.076	0.169	0.054	0.322	C	C	C	C	C	C	C	C	C	C
CEL1	7BCEFGHJK	GT1	NONE	ANF							0.073	0.035	0.022	0.044	C	C	C	C	C		B	B	B	C
CEL1	7BCEFGHJK	GT1	NONE	HAD							0.271	0.210	0.194	0.173	B			C			C	C	C	C
CEL1	7BCEFGHJK	GT1	NONE	HKE							0.709	0.901	0.066	0.780			C	C			C	C	C	C
CEL1	7BCEFGHJK	GT1	NONE	PLE							0.121	0.003	0.020		C						C	C	C	C
CEL1	7BCEFGHJK	GT1	NONE	SOL							0.035	0.000	0.004				C				C	C	C	
CEL1	7BCEFGHJK	GT1	NONE	WHG				0.069			0.701	0.026	0.737	0.089	C			C			C	B	C	C
CEL1	7BCEFGHJK	LL1	NONE	HAD											C	C		C	C					
CEL1	7BCEFGHJK	LL1	NONE	HKE											C	B	C	C	C					
CEL1	7BCEFGHJK	OTTER	NONE	ANF	0.259	0.284	0.040	0.042	0.058	0.049	0.340	0.094	0.050	0.126	C	C	B	C	C	C	C	A	C	C
CEL1	7BCEFGHJK	OTTER	NONE	HAD	0.899	0.411	0.848	0.213	0.999	0.522	0.639	0.389	0.157	0.146	C	B	A	C	C	A	C	B	B	C
CEL1	7BCEFGHJK	OTTER	NONE	HKE	0.013	0.736	0.976	0.378	1.000	0.714	0.001	0.051	0.204	0.761	C	C	C	C	C	C	C	B	B	C
CEL1	7BCEFGHJK	OTTER	NONE	NEP						0.439			0.053	0.080						A			C	A
CEL1	7BCEFGHJK	OTTER	NONE	PLE	0.596	0.190	0.101	0.357	0.133	0.075	0.450	0.261	0.641	0.297	C	C	C	C	C	C	C	C	C	C
CEL1	7BCEFGHJK	OTTER	NONE	SOL	0.001	0.003	0.071	0.008				0.026	0.003	0.219	C	C	C	C		C		C	C	B
CEL1	7BCEFGHJK	OTTER	NONE	WHG	0.006	0.236	0.708	0.140	0.477	0.434	0.992	0.577	0.133	0.030	C	C	C	C	C	C	C	C	B	C
CEL1	7BCEFGHJK	PEL_TRAWL	NONE	ANF	0.495										C							C		
CEL1	7BCEFGHJK	PEL_TRAWL	NONE	HAD	0.953										C									
CEL1	7BCEFGHJK	PEL_TRAWL	NONE	HKE	0.060									0.502	B		C							A
CEL1	7BCEFGHJK	PEL_TRAWL	NONE	NEP																				
CEL1	7BCEFGHJK	PEL_TRAWL	NONE	PLE	0.529								0.891	0.148	B								C	C
CEL1	7BCEFGHJK	PEL_TRAWL	NONE	SOL																				
CEL1	7BCEFGHJK	PEL_TRAWL	NONE	WHG	0.781							0.126	0.401	0.023	C						C	C	C	C
CEL1	7BCEFGHJK	TR1	NONE	ANF	0.017	0.036	0.004	0.012	0.007	0.063	0.043	0.072	0.100	0.107	A	A	A	A	A	C	B	B	B	B
CEL1	7BCEFGHJK	TR1	NONE	HAD	0.322	0.277	0.408	0.228	0.334	0.466	0.520	0.412	0.320	0.346	A	A	A	A	A	B	B	B	B	B
CEL1	7BCEFGHJK	TR1	NONE	HKE	0.119	0.233	0.074	0.253	0.189	0.498	0.292	0.121	0.588	0.617	C	B	C	C	B	C	B	B	B	B
CEL1	7BCEFGHJK	TR1	NONE	NEP						0.202	0.178	0.093	0.131	0.191	B	C	C	C	C	A	A	A	A	A
CEL1	7BCEFGHJK	TR1	NONE	PLE	0.307	0.384	0.414	0.548	0.557	0.637	0.674	0.404	0.313	0.544	A	A	B	A	A	C	B	B	B	B
CEL1	7BCEFGHJK	TR1	NONE	SOL	0.004	0.007	0.002	0.049	0.009	0.037	0.198	0.036	0.007	0.023	A	A	A	A	A	C	B	B	A	B
CEL1	7BCEFGHJK	TR1	NONE	WHG	0.246	0.184	0.087	0.503	0.237	0.519	0.321	0.277	0.285	0.160	A	A	A	A	A	B	B	A	B	B
CEL1	7BCEFGHJK	TR2	NONE	ANF	0.059	0.074	0.020	0.048	0.023	0.135	0.092	0.133	0.266	0.134	B	B	B	B	B	C	B	B	B	B
CEL1	7BCEFGHJK	TR2	NONE	HAD	0.771	0.693	0.653	0.604	0.608	0.473	0.628	0.503	0.618	0.242	A	A	B	B	A	A	B	A	B	A
CEL1	7BCEFGHJK	TR2	NONE	HKE	0.322	0.686	0.424	0.680	0.484	0.704	0.609	0.458	0.892	0.793	B	B	B	B	B	B	B	B	B	B
CEL1	7BCEFGHJK	TR2	NONE	NEP						0.222	0.141	0.081	0.095	0.139	C	C	C	C	C	A	A	A	A	A
CEL1	7BCEFGHJK	TR2	NONE	PLE	0.385	0.399	0.254	0.513	0.541	0.421	0.469	0.369	0.755	0.563	B	B	B	B	B	B	B	B	B	B
CEL1	7BCEFGHJK	TR2	NONE	SOL	0.007	0.008	0.008	0.058	0.016	0.008	0.129	0.027	0.044	0.105	B	B	C	C	C	C	B	B	B	B
CEL1	7BCEFGHJK	TR2	NONE	WHG	0.542	0.445	0.202	0.644	0.600	0.544	0.419	0.340	0.489	0.208	A	A	B	A	B	B	A	A	B	B
CEL1	7BCEFGHJK	TR3	NONE	ANF	0.884	0.034	0.020	1.000	0.158	0.750	0.045	0.103	0.806	0.896	C	C	A	A	A	B	A	B	C	A
CEL1	7BCEFGHJK	TR3	NONE	HAD	0.584	0.086	0.886	0.101	0.622	0.661	0.728	0.376	0.404	0.492	A	A	A	A	A	A	C	A	A	A
CEL1	7BCEFGHJK	TR3	NONE	HKE	0.348	0.793	0.327	1.000	1.000	0.997	0.746	0.095	1.000	1.000	A	C	B	A	A	A	B	B	A	A
CEL1	7BCEFGHJK	TR3	NONE	NEP							0.273			0.134							A			A
CEL1	7BCEFGHJK	TR3	NONE	PLE	0.290	0.051	0.079	0.096	0.478	0.286	0.391	0.180	0.216	0.328	A	C	B	A	A	A	B	C	A	B
CEL1	7BCEFGHJK	TR3	NONE	SOL	0.008		0.003	0.015	0.027	0.007	0.008	0.005	0.018	0.119	C		C	C	B	A	C	C	B	B
CEL1	7BCEFGHJK	TR3	NONE	WHG	0.470	0.072	0.751	0.235	0.962	0.662	0.273	0.366	0.830	0.769	A	B	C	A	B	C	C	C	C	C

Table 5.6.3.1.9. Discard rate and associated coverage index for Pelagic Species making up more than 1% of total pelagic landings by pelagic gears (trawl and seine), and *Nephrops* in Cel1 (7bcefghjk) by Gear and Special condition as defined under the cod management plan. A, ≥ 66% of landings have associated discard sampling, B, ≥ 33% < 66% of landings have associated discard sampling, C < 33% of landings have associated discard sampling. 2003-2013. Gear/Special condition combinations without discard data omitted.

annex	reg_area	reg_gear	specon	species	2004 R	2005 R	2006 R	2007 R	2008 R	2009 R	2010 R	2011 R	2012 R	2013 R	2004 D	2005 D	2006 D	2007 D	2008 D	2009 D	2010 D	2011 D	2012 D	2013 D
CEL1	7BCEFGHJK	BT2	NONE	HER				1.000		0.995		0.480	1.000	1.000				A		C		C	A	A
CEL1	7BCEFGHJK	BT2	NONE	JAX										0.054										C
CEL1	7BCEFGHJK	BT2	NONE	MAC				0.977	0.958	0.997		0.612	0.572	1.000				C	C	C		C	C	A
CEL1	7BCEFGHJK	BT2	NONE	PIL								1.000		1.000								A		A
CEL1	7BCEFGHJK	BT2	NONE	SPR				1.000										A						
CEL1	7BCEFGHJK	BT2	NONE	WHB				1.000		1.000		1.000	1.000	1.000				A		A		A	A	A
CEL1	7BCEFGHJK	DREDGE	NONE	SPR									1.000										A	
CEL1	7BCEFGHJK	GN1	NONE	HER																	C			
CEL1	7BCEFGHJK	GN1	NONE	JAX						0.718										C				
CEL1	7BCEFGHJK	GN1	NONE	MAC						0.763	0.110	0.008	0.030	0.088						C	C	C	C	C
CEL1	7BCEFGHJK	GN1	NONE	PIL						1.000				0.005						A				C
CEL1	7BCEFGHJK	GN1	NONE	WHB						1.000										A				
CEL1	7BCEFGHJK	GT1	NONE	MAC							0.010	0.723		0.508							C	C		C
CEL1	7BCEFGHJK	OTTER	NONE	HER	0.000	0.000	0.000	0.001	0.000	0.000		0.000			A	A	C	A	A	A	A	A		
CEL1	7BCEFGHJK	OTTER	NONE	HOM												C								
CEL1	7BCEFGHJK	OTTER	NONE	JAX	0.081	0.005	0.000	0.000	0.000			0.001		0.025	C	C	C	C	A		C	C		C
CEL1	7BCEFGHJK	OTTER	NONE	MAC	0.000	0.000	0.001	0.000	0.019	0.000	0.068	0.004	0.754		C	A	C	A	C	C	C	A	C	
CEL1	7BCEFGHJK	OTTER	NONE	NEP						0.439			0.053	0.080						A			C	A
CEL1	7BCEFGHJK	OTTER	NONE	SPR	0.003	1.000	0.000					1.000			C	A	C					A		
CEL1	7BCEFGHJK	OTTER	NONE	WHB	0.000	0.000	0.002	0.000	0.000						A	C	C	C	C					
CEL1	7BCEFGHJK	PEL_SEINE	NONE	JAX																		A		
CEL1	7BCEFGHJK	PEL_SEINE	NONE	MAC																	C	C		
CEL1	7BCEFGHJK	PEL_TRAWL	NONE	HER	0.000	0.004							0.038	0.002	B	C	C						C	C
CEL1	7BCEFGHJK	PEL_TRAWL	NONE	HOM											B	B	A	A	B					
CEL1	7BCEFGHJK	PEL_TRAWL	NONE	JAX	0.000						0.001	0.003	0.005	0.000	C					C	C	C	B	B
CEL1	7BCEFGHJK	PEL_TRAWL	NONE	MAC	0.091	0.064		0.012			0.089	0.161	0.138	0.028	C	C	C	C	C		C	C	C	B
CEL1	7BCEFGHJK	PEL_TRAWL	NONE	PIL										0.009										A
CEL1	7BCEFGHJK	PEL_TRAWL	NONE	SPR	0.000										B									
CEL1	7BCEFGHJK	PEL_TRAWL	NONE	WHB			0.007			0.000	0.077		0.002	0.006	C	C	C	C	C	C	C		B	B
CEL1	7BCEFGHJK	TR1	NONE	HER	0.289	0.987	0.780	0.992	0.969	0.750	0.162	0.614	0.984	0.959	A	A	C	C	B	A	A	A	C	A
CEL1	7BCEFGHJK	TR1	NONE	HOM											B	C	B	C	B					
CEL1	7BCEFGHJK	TR1	NONE	JAX	0.998	0.812	0.970	0.999	0.995	0.571	0.878	0.953	0.996	0.997	C	A	C	A	A	A	A	A	B	A
CEL1	7BCEFGHJK	TR1	NONE	MAC	0.128	0.320	0.842	0.970	0.988	0.589	0.995	0.935	0.995	0.982	A	A	C	B	A	A	B	B	C	C
CEL1	7BCEFGHJK	TR1	NONE	NEP						0.202	0.178	0.093	0.131	0.191	B	C	C	C	C	A	A	A	A	A
CEL1	7BCEFGHJK	TR1	NONE	PIL						0.970			0.814							C			A	
CEL1	7BCEFGHJK	TR1	NONE	SPR	1.000	1.000		1.000	1.000	0.001	1.000	0.997	0.938	1.000	A	A		A	A	A	A	C	C	A
CEL1	7BCEFGHJK	TR1	NONE	WHB	1.000	1.000	1.000	1.000	1.000	1.000	0.994	1.000	1.000	1.000	A	A	A	A	A	A	C	A	A	A
CEL1	7BCEFGHJK	TR2	NONE	HER	0.486	0.920	0.017	0.973	0.495	0.982	0.985	0.871	0.985	0.894	A	A	C	A	A	C	B	B	B	C
CEL1	7BCEFGHJK	TR2	NONE	HOM											C	C	C	C						
CEL1	7BCEFGHJK	TR2	NONE	JAX	0.989	0.742	0.982	0.952	0.990	0.526	0.569	0.676	0.990	0.997	C	C	C	C	C	C	C	C	C	C
CEL1	7BCEFGHJK	TR2	NONE	MAC	0.268	0.620	0.236	0.606	0.978	0.578	0.934	0.837	0.491	0.880	B	B	B	A	C	A	B	C	B	C
CEL1	7BCEFGHJK	TR2	NONE	NEP						0.222	0.141	0.081	0.095	0.139	C	C	C	C	C	A	A	A	A	A
CEL1	7BCEFGHJK	TR2	NONE	PIL						0.610			1.000		C					C		A	A	
CEL1	7BCEFGHJK	TR2	NONE	SPR	0.079	0.997	0.006	0.005	0.367	0.989	0.024	0.899		0.667	A	C	C	C	C	C	C	C	C	C
CEL1	7BCEFGHJK	TR2	NONE	WHB	1.000	1.000	1.000	1.000	1.000	1.000	0.981	1.000	1.000	1.000	A	A	C	A	C	C	C	A	A	A
CEL1	7BCEFGHJK	TR3	NONE	HER	1.000	1.000	1.000		1.000	0.001	1.000			0.007	A	A	A		A	A	A	A		C
CEL1	7BCEFGHJK	TR3	NONE	HOM																				
CEL1	7BCEFGHJK	TR3	NONE	JAX	0.000	1.000	1.000	1.000	1.000	0.006	0.017	0.020	0.134	1.000	C	A	A	A	A	A	A	A	C	C
CEL1	7BCEFGHJK	TR3	NONE	MAC	0.001	1.000	0.000	1.000	0.925	0.030	0.041	0.017		0.189	A	A	C	A	C	A	A	C	A	C
CEL1	7BCEFGHJK	TR3	NONE	NEP							0.273			0.134							A			A
CEL1	7BCEFGHJK	TR3	NONE	SPR	1.000	1.000	1.000								A	A	A			C				
CEL1	7BCEFGHJK	TR3	NONE	WHB	1.000	1.000	1.000	1.000	0.000	1.000	1.000		1.000	1.000	A	A	A	A	C	A	A		A	A

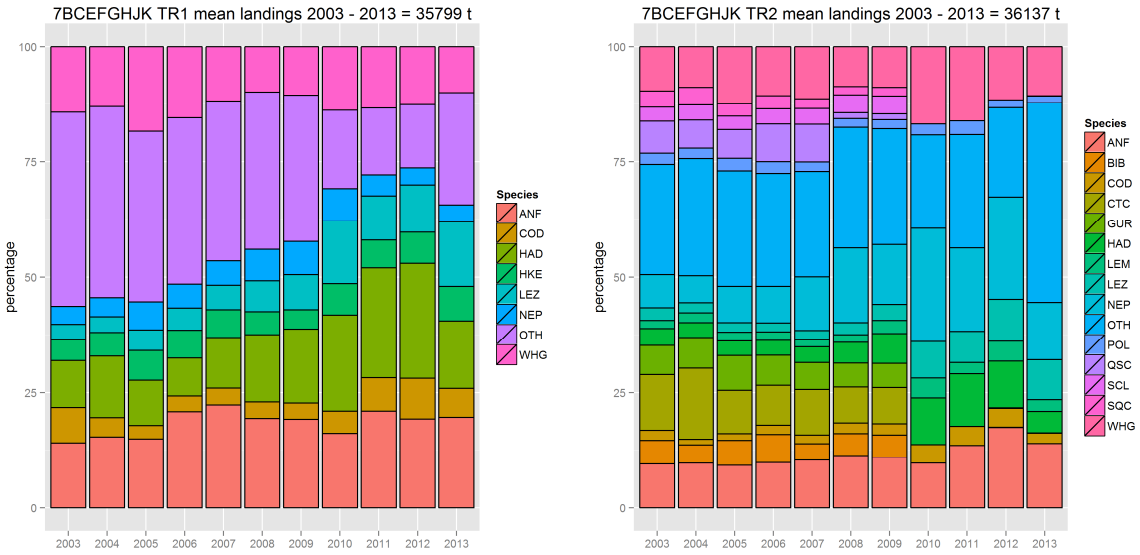


Figure 5.6.3.1.3. Relative percentage (in volume, not taking into account the discards) of each species in the total catches for TR1 (left), and TR2 (right) in Cel1 (7bcefghjk). 2003-2013. Note that landings are only those reported in accordance with the data call, not total landings by the fisheries.

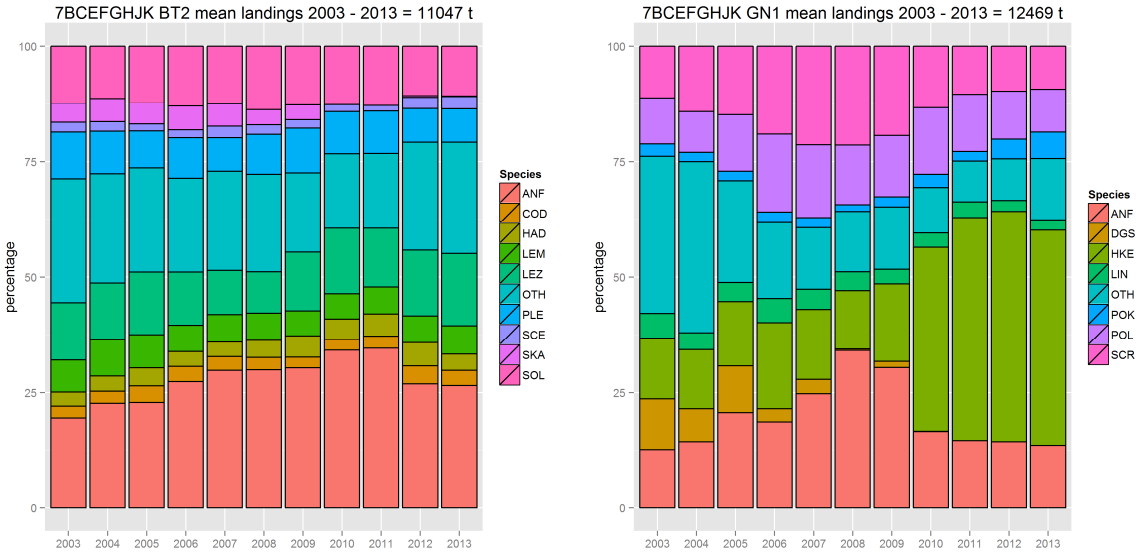


Figure 5.6.3.1.4. Relative percentage (in volume, not taking into account the discards) of each species in the total catches for BT2 (left), and GN1 (right) in Cel1 (7bcefghjk). 2003-2013. Note that landings are only those reported in accordance with the data call, not total landings by the fisheries.

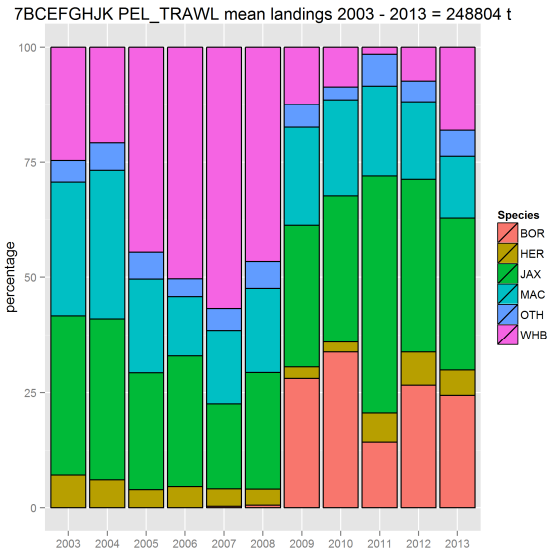


Figure 5.6.3.1.5. Relative percentage (in volume, not taking into account the discards) of each species in the total catches for PEL_TRAWL in Cel1 (7bcefghjk). 2003-2013. Note that landings are only those reported in accordance with the data call, not total landings by the fisheries.

5.6.3.2 ICES subdivisions 7fg (Cel2)

STECF EWG 14-13 presents the requested cod in weight by fisheries. Age specific data are available on the internet page of the STECF EWG 14-13:

STECF EWG 14-13 notes that discard information is scarce and presents only landing values; though figures have been provided on catch where some discard information is available (Figures 5.6.3.2.1 – 2), this should be interpreted with care due to some key fisheries not having discard information.

Table 5.6.3.2.8 presents discard rates alongside a discard coverage index for what information is available for gears catching anglerfish, haddock, hake, *Nephrops*, plaice, sole and whiting in the sub-area7fg of the Celtic Sea. As can be seen, in most cases the discard coverage index is either C (<33% of landings having discard information) or B (≥ 33% < 66%), reflecting the poor discard coverage in the data. It should be noted that the discard coverage index is only an indication of where a minimum one sample has been provided; therefore it should not necessarily be interpreted an indication of discard information quality, just that some information was available for fisheries using the gear.

Figures 5.6.3.2.1-2 shows landings and discards estimates (where available) of anglerfish, haddock, hake, Nephrops, plaice, sole, and whiting by the main gears from the sub-area of the Celtic Sea 7fg (Cel2), 2003-2013. The main gear for landings of these species is TR1, with landings of haddock, whiting, cod and anglerfish increasing in recent years. Landings of anglerfish in the BT2 fishery have also been increasing since 2008. GN1 landings of Hake, cod and pollack also increased in 2012.

Tables 5.6.3.2.1-7 lists the anglerfish, haddock, hake, *Nephrops*, plaice, sole, and whiting landings by Member States and gears, 2004-2013.

Table 5.6.3.2.9 shows the discard rate and discard coverage index for pelagic species which contribute to >1% of the landings of the main pelagic gears (PEL_TRAWL and PEL_SEINE). This includes herring, sprat and boarfish only. Discard information for *Nephrops* has also been presented. Where no discard

information was available for a gear/species it was omitted from the table. As can be seen, discard information from the fisheries is very scarce, and where available considered to be of low coverage of the landings (in most cases classified as C, <33% of landings covered by discard information). It should be noted that the discard coverage index is only an indication of where a minimum one sample has been provided; therefore it should not necessarily be interpreted an indication of discard information quality, just that some information was available for fisheries using the gear.

Figures 5.6.3.2.3-5 show the landings composition of the main gears (TR1, TR2, BT2, GN1, PEL_TRAWL) 2003-2013 from the sub-area of the Celtic Sea (Cel2; 7fg). The main species caught in this area per gear category was defined as species representing more than 2% of the total landings on average, 2003-2013.

For TR1 gear in sub-division 7fg, landings predominately consist of whiting, haddock, Nephrops, cod and anglerfish. Trends are quite stable and mainly driven by Whiting and Haddock.

For TR2 gear, landings are predominately *Nephrops* , whiting, haddock, cod and anglerfish. Trends are quite stable and mainly driven by whiting and Nephrops.

For BT2 gear, landings composition is mainly anglerfish, megrim, sole, rays, lemon sole, cod and haddock. Trends have been stable over the time series driven by anglerfish, megrim and sole.

For GN1, the main species caught in sub-division 7fg are pollock, hake, ling, cod, saithe, anglerfish, haddock, and, up until the landings ban introduced in 2010, dogfish. Trends are quite stable and mainly driven by hake, pollack and saithe.

For Pelagic trawls, landings are dominated by herring with some landings of sprat and boarfish since 2009.

Table 5.6.3.2.1 Anglerfish (t) landings by Member States and gears, 2004-2013.

ANNEX	REG_AREA	COUNTRY	REG_GEAR	SPECIES	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
CEL2	7FG	BEL	BEAM	ANF	9.951	0.696	0.222	1.725		0.549	1.128	3.225	3.919	4.782
CEL2	7FG	BEL	BT1	ANF										0.636
CEL2	7FG	BEL	BT2	ANF	760.119	574.269	532.029	605.109	328.602	303.546	419.843	649.535	989.3	850.467
CEL2	7FG	BEL	DREDGE	ANF					0.018				0.07	
CEL2	7FG	BEL	GN1	ANF					0.441					
CEL2	7FG	BEL	OTTER	ANF										
CEL2	7FG	BEL	TR1	ANF										0.708
CEL2	7FG	BEL	TR2	ANF	17.925	27.222	56.967	59.418	76.737	69.156	53.37	50.343	108.612	75.027
CEL2	7FG	ENG	BEAM	ANF		1.532								0.392
CEL2	7FG	ENG	BT1	ANF	1.034									
CEL2	7FG	ENG	BT2	ANF	358.271	219.346	179.904	196.717	106.667	105.256	155.433	128.679	375.662	330.438
CEL2	7FG	ENG	DREDGE	ANF	0.03	0.287	0.256	0.086	0.308	0.032	4.33	5.729	6.495	6.478
CEL2	7FG	ENG	GN1	ANF	100.064	80.858	50.936	42.145	44.127	61.578	61.484	83.617	58.438	35.129
CEL2	7FG	ENG	GT1	ANF	7.081	12.442	12.723	5.232	10.413	15.865	5.797	19.545	44.865	39.214
CEL2	7FG	ENG	LL1	ANF	0.092	0.163	0.021	0.001	0.001					
CEL2	7FG	ENG	OTTER	ANF	0.015	0.251	0.069	0.287	0.001	0.088	0.112	0.067	0.13	0.2
CEL2	7FG	ENG	POTS	ANF		0.042		0.026			0.003			
CEL2	7FG	ENG	TR1	ANF	19.57	16.698	23.109	23.381	32.044	38.383	88.527	83.989	125.938	113.124
CEL2	7FG	ENG	TR2	ANF	10.768	6.016	4.785	6.364	4.866	4.027	9.331	3.834	7.762	1.506
CEL2	7FG	ENG	TR3	ANF		0.099								
CEL2	7FG	ESP	TR1	ANF									11.05	61.113
CEL2	7FG	FRA	BT2	ANF			2.368							
CEL2	7FG	FRA	GN1	ANF	24.46	4.643		0.05	0.058	0.058		0.581	0.12	0.25
CEL2	7FG	FRA	GT1	ANF	0.024	6.586	17.078	9.805	9.754	9.754	0.39	11.345	5.844	21.88
CEL2	7FG	FRA	OTTER	ANF	2.33							0.451	0.093	
CEL2	7FG	FRA	PEL_SEINE	ANF									40.674	33.05
CEL2	7FG	FRA	PEL_TRAWL	ANF			1.024					0.535	9.418	0.01
CEL2	7FG	FRA	TR1	ANF	719.718	458.888	545.192	552.836	457.792	455.712	285.43	1034.251	1416.03	1648.22
CEL2	7FG	FRA	TR2	ANF	135.585	101.5	53.842	58.562	43.514	43.514	1.95	1.494	6.977	5.5
CEL2	7FG	FRA	TR3	ANF								0.389		
CEL2	7FG	GBJ	BT2	ANF	29.858	4.163								
CEL2	7FG	IOM	DREDGE	ANF			0.54							
CEL2	7FG	IRL	BEAM	ANF	61.72	0.46								
CEL2	7FG	IRL	BT1	ANF										
CEL2	7FG	IRL	BT2	ANF	162.31	366.35	479.95	346.7	367.84	433.79	461.68	457.58	497.06	561.04
CEL2	7FG	IRL	DEM_SEINE	ANF	7.61	0.58								
CEL2	7FG	IRL	DREDGE	ANF	2.25	0.73	0.44							
CEL2	7FG	IRL	GN1	ANF	38.25	49.56	32.22	19.29	15.88	32.96	28.07	32.63	27.85	16.68
CEL2	7FG	IRL	GT1	ANF				3.15	6.32	4.41	8.46	9.61	13.59	5.51
CEL2	7FG	IRL	LL1	ANF					0.01	0.01				0.05
CEL2	7FG	IRL	NONE	ANF									39.03	23.43
CEL2	7FG	IRL	OTTER	ANF	23.79	0.31	1.21						0.44	
CEL2	7FG	IRL	PEL_SEINE	ANF	4.82	0.7								
CEL2	7FG	IRL	PEL_TRAWL	ANF	6.21		0.2	0.34		1.12		2.9	1.48	0.42
CEL2	7FG	IRL	POTS	ANF	0.36		3.14	0.23	0.81	0.36	0.07	1.37	2.26	1.69
CEL2	7FG	IRL	TR1	ANF	78.45	102.19	165.64	233.42	329.31	464.19	524.98	583.62	601.13	601.01
CEL2	7FG	IRL	TR2	ANF	284.53	374.01	383.14	520.75	449.45	395.65	366.74	363.29	452.04	283.84
CEL2	7FG	IRL	TR3	ANF			0.22		0.26					
CEL2	7FG	NED	DREDGE	ANF				5						
CEL2	7FG	NIR	TR1	ANF							1.033	1.867	4.634	4.186
CEL2	7FG	NIR	TR2	ANF	3.916	4.492	2.465	3.228	8.663	18.816	12.249	0.82	6.026	9.629
CEL2	7FG	SCO	DREDGE	ANF			2.291	0.363	0.636	3.039	3.276	0.552		1.437
CEL2	7FG	SCO	GN1	ANF	0.031									
CEL2	7FG	SCO	OTTER	ANF						0.056				
CEL2	7FG	SCO	TR1	ANF	1.924		3.382	1.529	5.85	8.168	30.595	7.448	32.2	8.906
CEL2	7FG	SCO	TR2	ANF	0.056		0.854		1.622	2.481	0.647	8.192	1.676	3.34

Table 5.6.3.2.2 Haddock (t) landings by Member States and gears, 2004-2013.

ANNEX	REG_AREA	COUNTRY	REG_GEAR	SPECIES	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
CEL2	7FG	BEL	BEAM	HAD		0.157	0.057	0.16		0.174	0.797	1.548		1 0.612
CEL2	7FG	BEL	BT1	HAD										0.11
CEL2	7FG	BEL	BT2	HAD	127.727	154.824	89.212	97.567	88.419	94.372	119.352	150.395	158.201	126.762
CEL2	7FG	BEL	OTTER	HAD										
CEL2	7FG	BEL	TR1	HAD										0.183
CEL2	7FG	BEL	TR2	HAD	1.693	7.005	7.991	17.585	18.138	33.972	42.22	42.375	57.652	41.05
CEL2	7FG	ENG	BEAM	HAD		0.793								
CEL2	7FG	ENG	BT1	HAD	0.275									
CEL2	7FG	ENG	BT2	HAD	70.302	48.348	25.01	25.905	17.033	25.712	27.64	11.955	27.761	43.602
CEL2	7FG	ENG	DREDGE	HAD										0.023
CEL2	7FG	ENG	GN1	HAD	56.002	55.492	45.736	31.725	34.392	34.918	30.863	49.008	35.168	67.571
CEL2	7FG	ENG	GT1	HAD	0.001	0.055	0.367	1.075	0.438	0.081	0.012	0.519	0.257	0.441
CEL2	7FG	ENG	LL1	HAD	0.747	0.914	0.557	0.002						
CEL2	7FG	ENG	OTTER	HAD				0.023	0.001	0.001	0.027		0.001	0.001
CEL2	7FG	ENG	PEL_SEINE	HAD							0.303			
CEL2	7FG	ENG	POTS	HAD		1.017							0.019	0.008
CEL2	7FG	ENG	TR1	HAD	21.568	2.277	3.561	13.138	36.233	20.654	12.221	7.486	31.154	18.149
CEL2	7FG	ENG	TR2	HAD	9.227	7.567	10.59	12.864	11.427	5.348	10.77	7.198	9.858	6.825
CEL2	7FG	ENG	TR3	HAD		0.242								
CEL2	7FG	ESP	TR1	HAD									0.105	0.43
CEL2	7FG	FRA	BT2	HAD			2.096							
CEL2	7FG	FRA	GN1	HAD	0.039	0.115			0.068	0.068	0.02	0.005		
CEL2	7FG	FRA	GT1	HAD		0.004	0.02	0.03	0.013	0.013		0.008		
CEL2	7FG	FRA	LL1	HAD		0.002								0.28
CEL2	7FG	FRA	OTTER	HAD	2.745						6.6	2.905	0.083	
CEL2	7FG	FRA	PEL_SEINE	HAD									124.626	80.18
CEL2	7FG	FRA	PEL_TRAWL	HAD			0.097					1.305	23.862	0.33
CEL2	7FG	FRA	TR1	HAD	2845.116	1607.444	1038.685	1462.404	1672.187	1665.277	3006.01	1800.055	3515.48	3490.36
CEL2	7FG	FRA	TR2	HAD	230.535	140.252	69.07	128.009	102.29	102.29	43.03	10.922	12.464	2.12
CEL2	7FG	FRA	TR3	HAD								0.684		
CEL2	7FG	GBJ	BT2	HAD	3.989	0.373								
CEL2	7FG	IRL	BEAM	HAD	44.45	0.65								
CEL2	7FG	IRL	BT1	HAD										
CEL2	7FG	IRL	BT2	HAD	121.88	192.59	181.71	161.72	135.48	164.05	168.48	150.89	268.12	226.59
CEL2	7FG	IRL	DEM_SEINE	HAD	29.5	2.28								
CEL2	7FG	IRL	DREDGE	HAD	2.26		0.09							
CEL2	7FG	IRL	GN1	HAD	40.09	35.42	10.86	41.77	33.61	33.7	44.23	75.24	69.04	62.16
CEL2	7FG	IRL	GT1	HAD							0.14		0.44	3.41
CEL2	7FG	IRL	NONE	HAD									56.79	17.29
CEL2	7FG	IRL	OTTER	HAD	26.26	0.19	0.77			0.13			4.18	
CEL2	7FG	IRL	PEL_SEINE	HAD	41.28	7.1								
CEL2	7FG	IRL	PEL_TRAWL	HAD	4.61		1.48	0.18		3.48	0.12	22.39	19.15	4.05
CEL2	7FG	IRL	POTS	HAD	1.49		0.13		0.03	0.03	0.09	3.28		
CEL2	7FG	IRL	TR1	HAD	118.84	254.12	257.45	429.02	488.71	1220.67	1028.62	1928.85	2400.46	1403.48
CEL2	7FG	IRL	TR2	HAD	474.78	752.65	635.96	524.79	407.2	825.31	708.11	568.08	722.29	404.89
CEL2	7FG	IRL	TR3	HAD			0.2							
CEL2	7FG	NIR	TR1	HAD					11.578	0.021	41.055	91.879	262.711	340.106
CEL2	7FG	NIR	TR2	HAD	2.972	3.969	3.562	0.188	0.655	7.107	7.207	0.625	4.907	15.365
CEL2	7FG	SCO	TR1	HAD	1.038		0.24		0.099	1.626	18.87	17.537	88.663	28.955
CEL2	7FG	SCO	TR2	HAD	2.361		0.324		0.116	0.825	0.052	25.74	4.45	2.486

Table 5.6.3.2.3 Hake (t) landings by Member States and gears, 2004-2013.

ANNEX	REG_AREA	COUNTRY	REG_GEAR	SPECIES	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
CEL2	7FG	BEL	BEAM	HKE	0.411			0.073				0.022		0.159
CEL2	7FG	BEL	BT2	HKE	12.813	9.437	14.341	9.217	4.924	5.065	8.147	9.603	6.54	8.4
CEL2	7FG	BEL	OTTER	HKE										
CEL2	7FG	BEL	TR1	HKE										0.003
CEL2	7FG	BEL	TR2	HKE	0.356	0.464	1.894	1.389	2.213	1.764	3.152	0.451	1.246	1.996
CEL2	7FG	ENG	BEAM	HKE		0.034	0.002							0.037
CEL2	7FG	ENG	BT1	HKE	0.009									
CEL2	7FG	ENG	BT2	HKE	8.559	5.01	3.302	3.198	2.071	3.947	4.763	3.019	5.732	6.092
CEL2	7FG	ENG	DREDGE	HKE								0.002		
CEL2	7FG	ENG	GN1	HKE	217.981	231.203	134.527	152.629	176.771	181.938	119.563	271.516	444.229	627.595
CEL2	7FG	ENG	GT1	HKE		0.039	2.967	2.532	2.306	0.136	0.106	0.266	7.783	21.242
CEL2	7FG	ENG	LL1	HKE	5.439	3.073	1.422							
CEL2	7FG	ENG	OTTER	HKE		0.207		0.007		0.01			0.003	0.025
CEL2	7FG	ENG	PEL_SEINE	HKE							0.009			
CEL2	7FG	ENG	TR1	HKE	3.15	5.073	7.308	6.927	13.181	23.392	22.77	17.748	52.685	40.341
CEL2	7FG	ENG	TR2	HKE	1.201	1.328	1.387	0.93	0.653	0.658	0.834	0.299	3.131	0.053
CEL2	7FG	ENG	TR3	HKE		0.01								
CEL2	7FG	ESP	TR1	HKE									3.412	11.909
CEL2	7FG	FRA	BT2	HKE			0.149							
CEL2	7FG	FRA	GN1	HKE	0.078	38.951		0.168	0.005	0.005	3.41	9	23.69	8.06
CEL2	7FG	FRA	GT1	HKE	0.001	0.052	0.062	0.053			0.04	0.483	0.017	0.52
CEL2	7FG	FRA	OTTER	HKE	0.813						1.26	0.348		
CEL2	7FG	FRA	PEL_SEINE	HKE									6.28	8.17
CEL2	7FG	FRA	PEL_TRAWL	HKE			0.027	0.038				0.58	4.479	0.04
CEL2	7FG	FRA	TR1	HKE	103.093	85.706	76.63	86.224	70.667	70.406	299.395	393.169	441.438	728.57
CEL2	7FG	FRA	TR2	HKE	22.459	28.955	7.592	9.002	7.126	7.126	2.757	0.773	1.3	0.786
CEL2	7FG	FRA	TR3	HKE								0.087		
CEL2	7FG	GBJ	BT2	HKE	0.515	0.103								
CEL2	7FG	IRL	BEAM	HKE	13.02									
CEL2	7FG	IRL	BT1	HKE										
CEL2	7FG	IRL	BT2	HKE	33.15	42.33	43.28	46.59	23.19	19.81	37.53	32.5	39.14	45.61
CEL2	7FG	IRL	DEM_SEINE	HKE	11.76	0.24								
CEL2	7FG	IRL	DREDGE	HKE	0.66									
CEL2	7FG	IRL	GN1	HKE	130.08	132.03	56.67	111	233.6	290.04	186.08	233.29	209.4	176.19
CEL2	7FG	IRL	GT1	HKE				0.02			0.85	0.3	13.56	10
CEL2	7FG	IRL	NONE	HKE									18.11	2.66
CEL2	7FG	IRL	OTTER	HKE	8.76								0.87	
CEL2	7FG	IRL	PEL_SEINE	HKE	4.86	0.48								
CEL2	7FG	IRL	PEL_TRAWL	HKE	2.33		0.15	0.07		0.08		14.47	1.8	
CEL2	7FG	IRL	POTS	HKE	0.34				0.01			1.64		
CEL2	7FG	IRL	TR1	HKE	64.76	68.24	107.57	143.23	164.84	192.03	297.62	440.51	464.79	516.93
CEL2	7FG	IRL	TR2	HKE	113.07	98.93	115.97	106.15	97.08	81.14	115.76	57.18	78.04	63.4
CEL2	7FG	IRL	TR3	HKE			0.12							
CEL2	7FG	NIR	TR1	HKE			0.008			0.056	5.317	10.695	15.418	1.87
CEL2	7FG	NIR	TR2	HKE	1.795	1.335	0.379	0.153	0.559	0.656	1.797	0.01	0.377	0.795
CEL2	7FG	SCO	DREDGE	HKE										0.007
CEL2	7FG	SCO	GN1	HKE	0.01									
CEL2	7FG	SCO	OTTER	HKE						0.003				
CEL2	7FG	SCO	TR1	HKE	0.783		0.972	0.481	2.786	2.207	9.105	1.656	1.071	0.594
CEL2	7FG	SCO	TR2	HKE			0.146		0.603	0.021		0.004	0.021	0.337

Table 5.6.3.2.4 Nephrops (t) landings by Member States and gears, 2004-2013.

CEL2	7FG	BEL	BEAM	NEP	NA	NA	NA	NA	NA	NA	0.055	NA	0.272	NA
CEL2	7FG	BEL	BT2	NEP	0.572	1.043	0.721	1.46	0.388	2.645	4.285	4.331	5.002	4.747
CEL2	7FG	BEL	TR2	NEP	11.836	5.418	6.491	4.791	8.688	12.278	10.934	3.084	0.849	8.164
CEL2	7FG	ENG	BEAM	NEP	NA	0.016	NA	NA	NA	NA	NA	NA	NA	NA
CEL2	7FG	ENG	BT2	NEP	2.958	3.148	1.753	0.243	0.598	2.862	0.77	1.168	0.601	0.549
CEL2	7FG	ENG	GN1	NEP	NA	NA	NA	0.003	NA	NA	NA	NA	NA	NA
CEL2	7FG	ENG	POTS	NEP	NA	0.081	0.069	NA	NA	NA	0.002	NA	NA	NA
CEL2	7FG	ENG	TR1	NEP	1.331	2.076	1.135	0.585	2.966	7.647	4.63	4.636	4.055	5.797
CEL2	7FG	ENG	TR2	NEP	0.801	0.003	NA	1.595	NA	8.873	41.922	NA	0.059	NA
CEL2	7FG	ESP	TR1	NEP	NA	NA	NA	NA	NA	NA	NA	NA	0.732	9.052
CEL2	7FG	FRA	GN1	NEP	NA	0.481	NA	NA	NA	NA	NA	NA	NA	NA
CEL2	7FG	FRA	OTTER	NEP	NA	NA	NA	NA	NA	NA	1.89	NA	NA	NA
CEL2	7FG	FRA	PEL_TRAWL	NEP	NA	NA	0.95	NA	NA	NA	NA	NA	0.23	NA
CEL2	7FG	FRA	TR1	NEP	479.493	479.289	307.541	209.096	284.143	284.143	586.91	309.971	255.394	378.66
CEL2	7FG	FRA	TR2	NEP	27.295	45.84	14.184	11.765	12.525	12.525	NA	0.06	NA	NA
CEL2	7FG	FRA	TR3	NEP	NA	NA	NA	NA	NA	NA	NA	0.085	NA	NA
CEL2	7FG	IRL	BEAM	NEP	38.92	6.42	NA	NA	NA	NA	NA	NA	NA	NA
CEL2	7FG	IRL	BT1	NEP	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
CEL2	7FG	IRL	BT2	NEP	75.46	83.9	83.29	83.2	32.38	26.88	16.64	17.5	4.17	5.94
CEL2	7FG	IRL	DREDGE	NEP	0.9	NA	NA	NA	NA	NA	NA	NA	NA	NA
CEL2	7FG	IRL	GN1	NEP	12.51	9.53	3.89	NA	3.97	2.31	NA	0.05	3.12	1.79
CEL2	7FG	IRL	GT1	NEP	NA	NA	NA	NA	NA	NA	NA	NA	0.02	0.24
CEL2	7FG	IRL	NONE	NEP	NA	NA	NA	NA	NA	NA	NA	NA	180.65	61.09
CEL2	7FG	IRL	OTTER	NEP	209.55	0.12	3.04	NA	0.1	0.1	NA	NA	0.61	NA
CEL2	7FG	IRL	PEL_SEINE	NEP	2.6	0.08	NA	NA	NA	NA	NA	NA	NA	NA
CEL2	7FG	IRL	PEL_TRAWL	NEP	47.46	NA	1.16	0.98	NA	15.15	NA	9.17	30.07	3.21
CEL2	7FG	IRL	POTS	NEP	3.54	NA	NA	0.71	0.54	NA	NA	0.1	NA	NA
CEL2	7FG	IRL	TR1	NEP	214.45	371.18	436.36	675.74	1080.17	1433.79	981.61	1050.13	939.79	1211.52
CEL2	7FG	IRL	TR2	NEP	1675.39	2415.86	1805.46	3110.87	2916.77	2315.34	2699.45	1660	2731.81	2117.48
CEL2	7FG	IRL	TR3	NEP	NA	NA	0.3	NA	NA	NA	NA	NA	NA	NA
CEL2	7FG	NIR	TR1	NEP	NA	0.608	NA	NA	NA	NA	NA	NA	0.363	2.89
CEL2	7FG	NIR	TR2	NEP	34.58	65.012	58.484	46.887	338.122	328.437	328.044	7.587	32.977	83.549
CEL2	7FG	SCO	TR1	NEP	0.11	NA	NA	NA	0.136	0.066	60.741	14.304	39.036	25.943
CEL2	7FG	SCO	TR2	NEP	NA	NA	NA	NA	0.665	47.068	7.206	23.634	NA	18.285

Table 5.6.3.2.5 Plaice (t) landings by Member States and gears, 2004-2013.

ANNEX	REG_AREA	COUNTRY	REG_GEAR	SPECIES	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
CEL2	7FG	BEL	BEAM	PLE	0.149	0.763	1.066	0.322	0.727		1.606	0.405	1.068	0.504	0.137
CEL2	7FG	BEL	BT1	PLE											0.133
CEL2	7FG	BEL	BT2	PLE	206.623	197.953	150.713	129.684	138.073	105.029	137.42	125.442	154.468	164.498	154.681
CEL2	7FG	BEL	OTTER	PLE	5.456										
CEL2	7FG	BEL	TR1	PLE											0.091
CEL2	7FG	BEL	TR2	PLE		4.363	14.957	40.588	54.17	79.031	79.566	61.549	51.533	37.201	28.56
CEL2	7FG	ENG	BEAM	PLE	0.061	0.059	0.016			0.201					
CEL2	7FG	ENG	BT1	PLE		0.021									
CEL2	7FG	ENG	BT2	PLE	65.888	39.437	27.117	27.423	24.032	23.644	28.013	25.234	22.475	24.08	23.087
CEL2	7FG	ENG	DREDGE	PLE	0.002	0.004			0.001			0.033	0.006	0.008	0.031
CEL2	7FG	ENG	GN1	PLE	0.227	0.522	0.762	0.887	0.356	0.137	0.2	0.676	0.556	0.367	0.484
CEL2	7FG	ENG	GT1	PLE		0.001	0.03	0.063	0.011	0.012	0.014	0.056	0.119	0.135	0.489
CEL2	7FG	ENG	LL1	PLE	0.009						0.001				
CEL2	7FG	ENG	OTTER	PLE	0.289	0.007	0.491	0.166	0.361	0.083	0.177	0.131	0.107	0.175	0.11
CEL2	7FG	ENG	PEL_SEINE	PLE								0.042			
CEL2	7FG	ENG	POTS	PLE			0.001								
CEL2	7FG	ENG	TR1	PLE	3.105	2.568	0.337	0.216	0.985	0.823	1.787	1.253	1.945	1.712	0.911
CEL2	7FG	ENG	TR2	PLE	28.957	20.504	11.459	23.544	14.542	17.458	12.811	13.584	8.866	7.997	2.701
CEL2	7FG	ENG	TR3	PLE			0.017								
CEL2	7FG	FRA	BT2	PLE			3.43	0.09				0.235	1.795	0.03	1.15
CEL2	7FG	FRA	DREDGE	PLE	0.009		0.004					0.065	0.065	0.058	
CEL2	7FG	FRA	GN1	PLE	0.017	0.008	0.013			0.003	0.003				
CEL2	7FG	FRA	GT1	PLE	0.007	0.153	0.004	0.012				0.39	1.515	0.399	0.42
CEL2	7FG	FRA	OTTER	PLE		0.105						2.12	0.034		
CEL2	7FG	FRA	PEL_SEINE	PLE										2.999	2.68
CEL2	7FG	FRA	PEL_TRAWL	PLE	0.003			0.059				0.05	0.09	0.315	
CEL2	7FG	FRA	POTS	PLE									0.061		
CEL2	7FG	FRA	TR1	PLE	117.392	91.342	64.276	51.687	51.98	72.277	71.838	91.84	60.793	71.46	69.18
CEL2	7FG	FRA	TR2	PLE	18.84	14.018	13.791	5.051	8.354	6.97	6.97	3.07	1.389	0.812	0.06
CEL2	7FG	FRA	TR3	PLE									0.036		
CEL2	7FG	GBJ	BT2	PLE	9.709	11.014	1.739								
CEL2	7FG	IRL	BEAM	PLE	0.26	1.4									
CEL2	7FG	IRL	BT2	PLE	9.22	5.49	10.74	15.54	23.15	14.31	7.87	7.15	6.84	11.37	14.34
CEL2	7FG	IRL	DEM_SEINE	PLE	0.53	0.53									
CEL2	7FG	IRL	DREDGE	PLE	0.08			0.04							
CEL2	7FG	IRL	GN1	PLE	0.21	0.39	0.13	0.1	0.32	0.01	0.46				0.01
CEL2	7FG	IRL	GT1	PLE	0.02							0.03			0.03
CEL2	7FG	IRL	NONE	PLE										0.48	0.48
CEL2	7FG	IRL	OTTER	PLE	0.97		1 0.02								
CEL2	7FG	IRL	PEL_SEINE	PLE	0.1	1.22									
CEL2	7FG	IRL	PEL_TRAWL	PLE		0.25					0.07		0.5	0.07	0.27
CEL2	7FG	IRL	POTS	PLE		0.08				0.02		0.04			
CEL2	7FG	IRL	TR1	PLE	14.88	7.52	7.71	5.75	13.7	23.86	29.47	33.57	39.38	41.51	29.15
CEL2	7FG	IRL	TR2	PLE	24.22		28 26.43	26.67	21.87	24.1	25.19	23.86	21.28	20.76	14.09
CEL2	7FG	IRL	TR3	PLE											
CEL2	7FG	NIR	TR1	PLE	0.164								0.001	0.354	0.17
CEL2	7FG	NIR	TR2	PLE		0.501	0.217	0.496		0.213	0.951	0.716	0.034	0.023	0.243
CEL2	7FG	SCO	DREDGE	PLE								0.001	0.001		0.002
CEL2	7FG	SCO	OTTER	PLE							0.085				
CEL2	7FG	SCO	TR1	PLE	0.081						0.038	0.325	0.436	0.238	0.561
CEL2	7FG	SCO	TR2	PLE		0.214					0.057		0.093	0.013	0.027

Table 5.6.3.2.6 Sole (t) landings by Member States and gears, 2004-2013.

ANNEX	REG_AREA	COUNTRY	REG_GEAR	SPECIES	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
CEL2	7FG	BEL	BEAM	SOL	1.289	2.138	0.737	4.979		2.23	4.201	3.811	1.028	1.265
CEL2	7FG	BEL	BT1	SOL										1.475
CEL2	7FG	BEL	BT2	SOL	693.827	624.618	527.845	522.599	412.171	438.424	534.504	688.257	781.151	742.497
CEL2	7FG	BEL	OTTER	SOL										
CEL2	7FG	BEL	TR2	SOL	15.101	15.278	43.165	46.052	49.729	75.219	80.117	80.706	55.769	40.03
CEL2	7FG	ENG	BEAM	SOL	0.048	0.21			0.396					0.04
CEL2	7FG	ENG	BT1	SOL	0.384									
CEL2	7FG	ENG	BT2	SOL	212.959	175.979	181.496	211.838	185.231	170.756	154.503	141.532	143.016	175.913
CEL2	7FG	ENG	DREDGE	SOL	0.01	0.209	0.062	0.021	0.007	0.007	0.359	0.286	0.076	1.217
CEL2	7FG	ENG	GN1	SOL	0.92	0.894	0.6	0.715	0.248	0.199	0.214	0.275	0.091	0.142
CEL2	7FG	ENG	GT1	SOL	0.011	0.04	0.001	0.007	0.014		0.001			0.005
CEL2	7FG	ENG	LL1	SOL								0.001		
CEL2	7FG	ENG	OTTER	SOL		0.163	0.022	0.061	0.013	0.007	0.024	0.051	0.356	0.047
CEL2	7FG	ENG	PEL_SEINE	SOL							0.002			
CEL2	7FG	ENG	POTS	SOL									0.157	
CEL2	7FG	ENG	TR1	SOL	1.159	0.343	0.07	0.131	0.917	0.924	1.218	0.272	0.471	0.812
CEL2	7FG	ENG	TR2	SOL	8.85	10.151	18.125	9.038	10.327	8.911	12.287	16.39	17.138	14.022
CEL2	7FG	ENG	TR3	SOL		0.021								
CEL2	7FG	FRA	BT2	SOL		2.615	0.021				0.37	1.54	0.04	0.17
CEL2	7FG	FRA	DREDGE	SOL		0.004					0.16	0.1	0.08	
CEL2	7FG	FRA	GN1	SOL	0.287	0.018								
CEL2	7FG	FRA	GT1	SOL	1.846	0.4					1.713	6.199	1.486	4.68
CEL2	7FG	FRA	OTTER	SOL	0.123						0.134	0.018		
CEL2	7FG	FRA	PEL_SEINE	SOL									0.575	1.23
CEL2	7FG	FRA	PEL_TRAWL	SOL			0.064				0.03		0.057	
CEL2	7FG	FRA	POTS	SOL								0.095		
CEL2	7FG	FRA	TR1	SOL	38.95	37.966	30.528	36.219	29.986	29.979	25.67	29.864	30.632	33.212
CEL2	7FG	FRA	TR2	SOL	10.278	16.998	4.451	14.416	3.982	3.982	0.73	0.619	0.221	0.133
CEL2	7FG	FRA	TR3	SOL								0.007		
CEL2	7FG	GBJ	BT2	SOL	47.992	20.7								
CEL2	7FG	IOM	DREDGE	SOL				0.001						
CEL2	7FG	IRL	BEAM	SOL	1.75	0.04								
CEL2	7FG	IRL	BT1	SOL										
CEL2	7FG	IRL	BT2	SOL	10.12	15.52	21.69	12.7	12.13	12.02	8.48	6.94	10.77	16.01
CEL2	7FG	IRL	DREDGE	SOL	0.37		0.05							
CEL2	7FG	IRL	GN1	SOL	0.11	0.09	0.86	0.09	0.15	0.23	0.14	0.02	0.03	0.19
CEL2	7FG	IRL	NONE	SOL									0.72	0.29
CEL2	7FG	IRL	OTTER	SOL	0.47	0.02	0.02							
CEL2	7FG	IRL	PEL_SEINE	SOL	0.79									
CEL2	7FG	IRL	PEL_TRAWL	SOL	0.54							0.04	0.03	
CEL2	7FG	IRL	POTS	SOL										
CEL2	7FG	IRL	TR1	SOL	2.63	1.26	2.08	2.7	2.96	3.9	4.4	7.83	5.45	7.47
CEL2	7FG	IRL	TR2	SOL	16.3	17.13	13.41	16.64	12.99	11.75	15.85	16.59	14.51	9.95
CEL2	7FG	NED	BT2	SOL										
CEL2	7FG	NED	DREDGE	SOL										
CEL2	7FG	NIR	TR1	SOL								0.004	0.028	0.096
CEL2	7FG	NIR	TR2	SOL	0.59	0.616	0.285	0.151	1.086	2.019	1.682	0.058	0.283	0.552
CEL2	7FG	SCO	DREDGE	SOL			0.048		0.062		0.038	0.009		0.151
CEL2	7FG	SCO	OTTER	SOL						0.001				
CEL2	7FG	SCO	TR1	SOL						0.094	0.003	0.177	0.341	0.039
CEL2	7FG	SCO	TR2	SOL	0.074					0.063		0.099	0.084	0.138

Table 5.6.3.2.7 Whiting (t) landings by Member States and gears, 2004-2013.

ANNEX	REG_AREA	COUNTRY	REG_GEAR	SPECIES	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
CEL2	7FG	BEL	BEAM	WHG	0.595	0.129	0.393	0.244		0.073		0.035	0.381	0.39
CEL2	7FG	BEL	BT1	WHG										0.165
CEL2	7FG	BEL	BT2	WHG	136.629	177.846	53.947	67.412	73.184	38.744	64.398	63.663	90.97	141.069
CEL2	7FG	BEL	OTTER	WHG										
CEL2	7FG	BEL	TR1	WHG										0.135
CEL2	7FG	BEL	TR2	WHG	35.829	36.471	69.641	54.535	43.167	45.048	29.604	24.358	50.062	60.425
CEL2	7FG	ENG	BEAM	WHG		0.014								
CEL2	7FG	ENG	BT1	WHG	0.001									
CEL2	7FG	ENG	BT2	WHG	13.129	12.393	7.205	9.845	10.942	9.582	8.951	8.379	6.52	11.649
CEL2	7FG	ENG	DREDGE	WHG	0.003									
CEL2	7FG	ENG	GN1	WHG	13.127	17.049	11.215	9.524	4.53	3.41	4.038	8.956	7.621	5.978
CEL2	7FG	ENG	GT1	WHG	0.097	0.065	0.08	0.225	0.043	0.061	0.017	0.101	0.135	0.351
CEL2	7FG	ENG	LL1	WHG	0.066	0.227	0.015	0.002	0.003					
CEL2	7FG	ENG	OTTER	WHG		0.013		0.033		0.014	0.013		0.002	0.021
CEL2	7FG	ENG	PEL_SEINE	WHG							0.612			
CEL2	7FG	ENG	POTS	WHG	0.106			0.009					0.003	
CEL2	7FG	ENG	TR1	WHG	10.371	3.064	2.025	3.232	4.874	6.763	5.974	7.506	8.416	2.038
CEL2	7FG	ENG	TR2	WHG	36.884	27.887	11.535	5.21	4.297	2.717	11.757	2.887	2.076	0.874
CEL2	7FG	ENG	TR3	WHG		0.074								
CEL2	7FG	FRA	BT2	WHG			0.063					0.025		0.02
CEL2	7FG	FRA	GN1	WHG	0.154	4.701		0.022	0.025	0.025			0.416	
CEL2	7FG	FRA	GT1	WHG		0.014		0.012			0.05	0.066	0.015	0.05
CEL2	7FG	FRA	OTTER	WHG	10.289						2.5	0.137	0.032	
CEL2	7FG	FRA	PEL_SEINE	WHG									16.472	23.47
CEL2	7FG	FRA	PEL_TRAWL	WHG	0.18		1.285					0.135	1.039	0.06
CEL2	7FG	FRA	TR1	WHG	2636.194	3577.314	2763.385	1789.324	1098.857	1092.821	1212.74	1141.604	977.469	1047.65
CEL2	7FG	FRA	TR2	WHG	258.958	460.258	121.41	121.316	84.829	84.829	19.01	10.603	9.006	1.53
CEL2	7FG	FRA	TR3	WHG								0.733		
CEL2	7FG	GBJ	BT2	WHG	1.475	1.134								
CEL2	7FG	IRL	BEAM	WHG	8.24									
CEL2	7FG	IRL	BT1	WHG										
CEL2	7FG	IRL	BT2	WHG	29.69	27.71	21.5	24.21	3.81	2.73	4.29	14.82	12.09	10.88
CEL2	7FG	IRL	DEM_SEINE	WHG	47.02	7.5								
CEL2	7FG	IRL	DREDGE	WHG	0.72		0.09							
CEL2	7FG	IRL	GN1	WHG	90.72	16.92	1.99	6.58	8.55	6.77	11.84	14.7	49.92	64.99
CEL2	7FG	IRL	GT1	WHG							0.06	0.03	0.17	2.32
CEL2	7FG	IRL	NONE	WHG									93.65	16.38
CEL2	7FG	IRL	OTTER	WHG	363.95								1.81	
CEL2	7FG	IRL	PEL_SEINE	WHG	78.91	8.68								
CEL2	7FG	IRL	PEL_TRAWL	WHG	42.19			13	0.13		2.83	0.12	37.02	21.88	28.17
CEL2	7FG	IRL	POTS	WHG	2.04						0.03		1.15	
CEL2	7FG	IRL	TR1	WHG	611.34	641.43	758.07	853.92	814.01	1248.19	1695.69	2565.24	3247.77	2926.6
CEL2	7FG	IRL	TR2	WHG	2153.58	4286.66	3141.33	3403.74	1019.6	853.57	1585.51	1313.89	929.24	1835.06
CEL2	7FG	IRL	TR3	WHG			0.6							
CEL2	7FG	NED	TR2	WHG										
CEL2	7FG	NIR	TR1	WHG			13.3		0.2		29.075	24.244	27.706	82.969
CEL2	7FG	NIR	TR2	WHG	15.573	10.263	8.599	0.685	10.019	12.803	16.655	1.13	3.405	19.903
CEL2	7FG	SCO	OTTER	WHG						0.028				
CEL2	7FG	SCO	TR1	WHG	3.576					4.511	1.895	4.278	8.222	2.675
CEL2	7FG	SCO	TR2	WHG	6.837					2.54		5.878	0.167	2.334

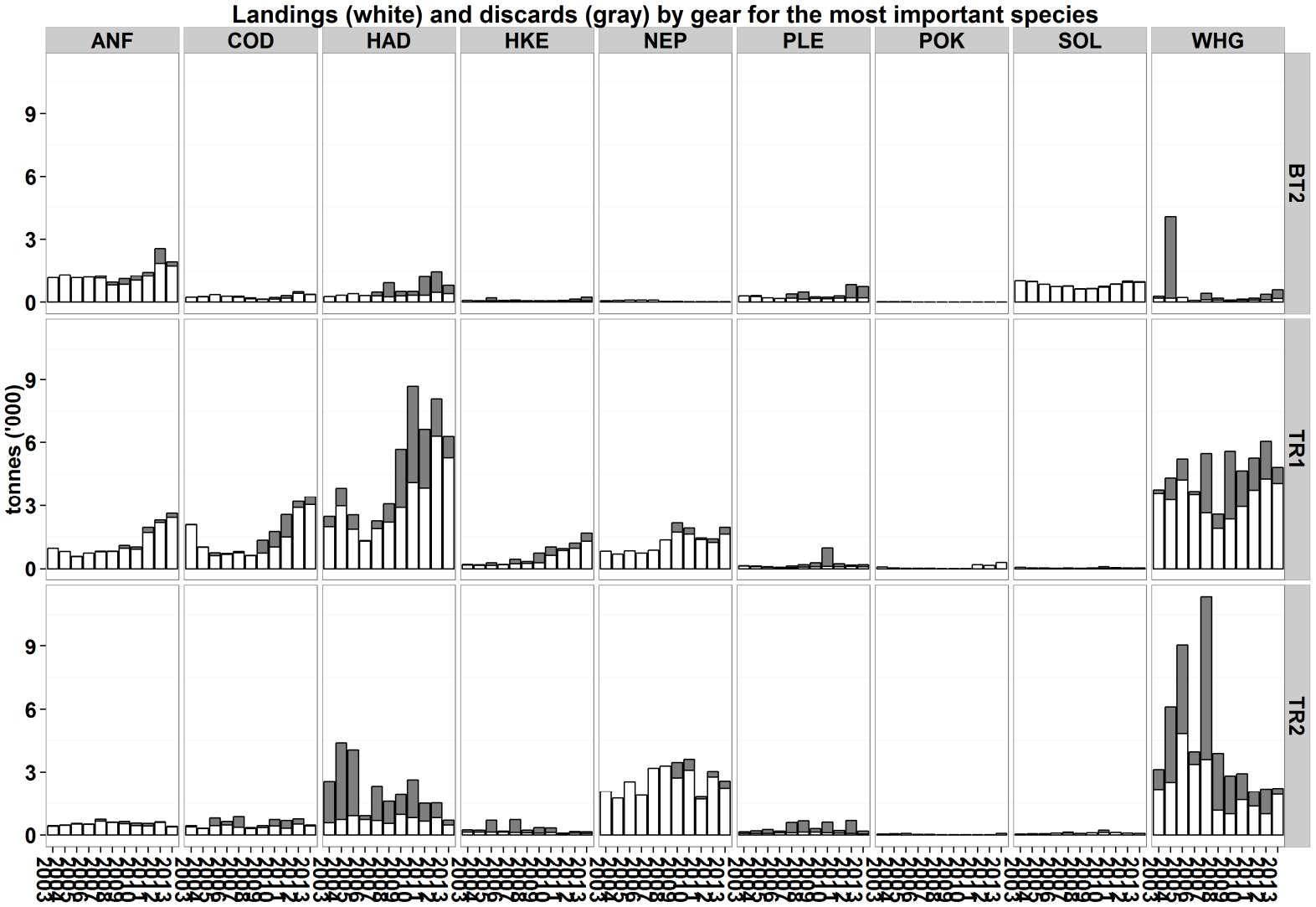


Figure 5.6.3.2.1. Landings and discards of the main species by active gears (BT2, TR1, TR2) in the subsection of the Celtic Sea (Cel2 7fg). 2003-2013.

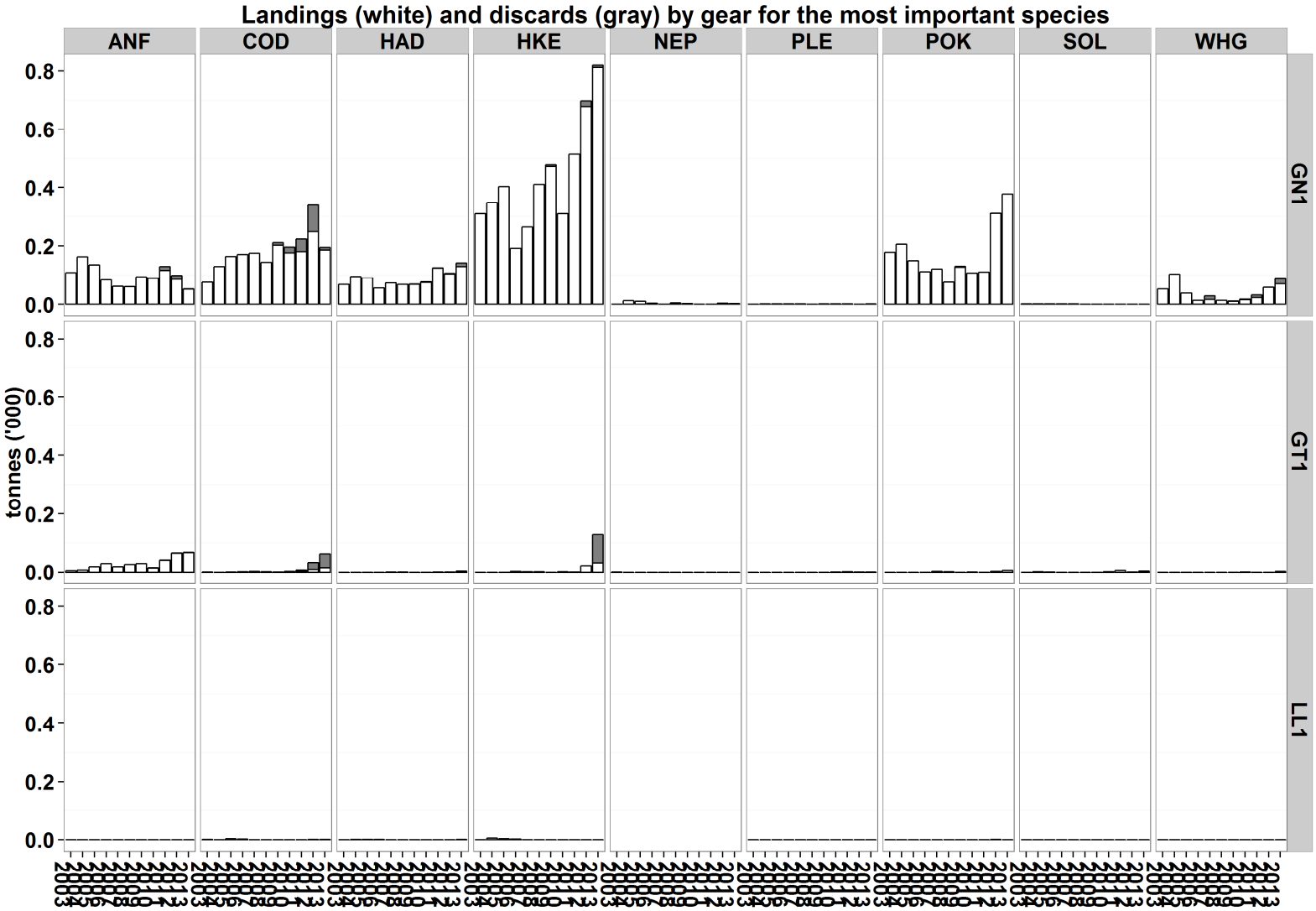


Figure 5.6.3.2.2. Landings and discards of the main species by passive gears (GN1, GT1, LL1) in the subsection of the Celtic Sea (Cel2 7fg). 2003-2013.

Table 5.6.3.2.8. Discard rate and associated coverage index for Cod in Cel2 (7fg) by Gear and Special condition as defined under the cod management plan. A, ≥ 66% of landings have associated discard sampling, B, ≥ 33% < 66% of landings have associated discard sampling, C < 33% of landings have associated discard sampling. 2003-2013. Gear/Special condition combinations without discard data omitted.

annex	reg_area	reg_gear	specon	species	2004 R	2005 R	2006 R	2007 R	2008 R	2009 R	2010 R	2011 R	2012 R	2013 R	2004 D(	2005 D(	2006 D(	2007 D(	2008 D(	2009 D(	2010 D(	2011 D(	2012 D(	2013 D(
CEL2	7FG	BEAM	NONE	HAD							0.500										A			
CEL2	7FG	BT2	NONE	ANF				0.068	0.150	0.243	0.169	0.138	0.274	0.098				A	A	B	C	A	A	A
CEL2	7FG	BT2	NONE	HAD				0.397	0.736	0.436	0.367	0.738	0.689	0.502	C	C	C	A	A	B	C	A	A	A
CEL2	7FG	BT2	NONE	HKE		0.723	0.174	0.381	0.521	0.533	0.258	0.369	0.641	0.733	C	C	C	A	A	B	C	B	A	A
CEL2	7FG	BT2	NONE	PLE	0.175			0.519	0.698	0.287	0.290	0.364	0.756	0.736	C	C	C	A	A	A	A	A	A	A
CEL2	7FG	BT2	NONE	SOL	0.010			0.027	0.021	0.037	0.068	0.022	0.049	0.025	C	C	C	A	A	A	A	A	C	A
CEL2	7FG	BT2	NONE	WHG	0.955			0.751	0.531	0.424	0.425	0.524	0.706	0.718	C		C	A	A	A	A	A	A	A
CEL2	7FG	DREDGE	NONE	ANF							0.614	0.596	0.851	0.688							C	C	C	C
CEL2	7FG	DREDGE	NONE	HKE								0.982										C		
CEL2	7FG	DREDGE	NONE	PLE							0.843	0.882	0.966	0.981							C	C	C	C
CEL2	7FG	GN1	NONE	ANF						0.003	0.013	0.100	0.125	0.020	C	C			C	C	C	C	C	C
CEL2	7FG	GN1	NONE	HAD						0.003	0.021	0.010	0.021	0.088	C				C	B	A	B	B	B
CEL2	7FG	GN1	NONE	HKE						0.011	0.000	0.001	0.028	0.010	C	C		C	C	A	B	B	B	A
CEL2	7FG	GN1	NONE	PLE								0.400		0.648					C	C		C		C
CEL2	7FG	GN1	NONE	SOL						0.007			0.016							C	C	C	C	C
CEL2	7FG	GN1	NONE	WHG				0.447		0.094	0.086	0.272	0.010	0.191	C			C	C	A	B	C	C	B
CEL2	7FG	GT1	NONE	ANF							0.019	0.029	0.026	0.021			C	C	C		A	B	C	C
CEL2	7FG	GT1	NONE	HAD							0.196										C		B	
CEL2	7FG	GT1	NONE	HKE							0.562			0.753			C	C			A	C	B	C
CEL2	7FG	GT1	NONE	PLE																	C	C		B
CEL2	7FG	GT1	NONE	WHG				0.122			0.712	0.377	0.012	0.095				C			C	B	B	C
CEL2	7FG	LL1	NONE	SOL												A								
CEL2	7FG	OTTER	NONE	ANF	0.000	0.019	0.030	0.020	0.909		0.479	0.037	0.058		C	C	A	C	C		B	C	A	
CEL2	7FG	OTTER	NONE	HAD	0.792	0.855	0.386	0.779	0.997	0.379	0.015	0.033	0.014		C	C	A	C	C	A	C	C	A	
CEL2	7FG	OTTER	NONE	HKE	0.001	0.804	1.000	0.816	1.000	0.606			0.011		C	A	C	C	A	C			A	
CEL2	7FG	OTTER	NONE	NEP						0.167			0.141							A			A	
CEL2	7FG	OTTER	NONE	PLE	0.274	0.057	0.563	0.019	0.153		0.518		0.663		C	C	C	C	C		C		C	
CEL2	7FG	OTTER	NONE	SOL				0.016								C		C						
CEL2	7FG	OTTER	NONE	WHG	0.001	0.991	1.000	0.946	1.000	0.840	0.761	0.663	0.144		C	C	C	C	A	C	C	C	A	
CEL2	7FG	PEL_TRAWL	NONE	ANF	0.095										B									
CEL2	7FG	PEL_TRAWL	NONE	HAD	0.954										C									
CEL2	7FG	PEL_TRAWL	NONE	HKE	0.084										B									
CEL2	7FG	PEL_TRAWL	NONE	PLE	0.471										A									
CEL2	7FG	PEL_TRAWL	NONE	WHG	0.685										C									
CEL2	7FG	POTS	NONE	SOL															A					
CEL2	7FG	POTS	NONE	WHG																				
CEL2	7FG	TR1	NONE	ANF	0.006	0.011	0.003	0.035	0.013	0.131	0.096	0.130	0.054	0.073	A	A	A	A	A	B	B	B	A	B
CEL2	7FG	TR1	NONE	HAD	0.220	0.270	0.026	0.161	0.279	0.487	0.527	0.418	0.222	0.158	A	A	A	A	A	B	B	B	B	B
CEL2	7FG	TR1	NONE	HKE	0.130	0.444	0.071	0.485	0.293	0.611	0.384	0.096	0.196	0.229	A	A	B	B	A	B	B	A	A	B
CEL2	7FG	TR1	NONE	NEP						0.208	0.152	0.059	0.119	0.168	A	B	B	C	C	A	A	A	A	A
CEL2	7FG	TR1	NONE	PLE	0.250	0.270	0.216	0.486	0.493	0.638	0.872	0.565	0.382	0.498	A	A	A	A	A	C	B	B	B	B
CEL2	7FG	TR1	NONE	SOL		0.002		0.073	0.001	0.064	0.718	0.263	0.003	0.050	A	A	A	A	A	C	B	B	A	C
CEL2	7FG	TR1	NONE	WHG	0.245	0.191	0.038	0.516	0.258	0.579	0.368	0.289	0.294	0.158	A	A	A	A	A	B	B	A	A	A
CEL2	7FG	TR2	NONE	ANF	0.041	0.063	0.021	0.133	0.038	0.158	0.211	0.207	0.063	0.075	A	A	A	A	A	A	A	A	A	A
CEL2	7FG	TR2	NONE	HAD	0.835	0.774	0.194	0.706	0.662	0.490	0.692	0.565	0.464	0.316	A	A	B	B	A	A	A	A	A	A
CEL2	7FG	TR2	NONE	HKE	0.374	0.812	0.264	0.839	0.525	0.741	0.621	0.279	0.498	0.520	A	A	B	B	A	A	A	A	A	A
CEL2	7FG	TR2	NONE	NEP						0.210	0.144	0.061	0.086	0.134	C		C		C	A	A	A	A	A
CEL2	7FG	TR2	NONE	PLE	0.663	0.731	0.480	0.830	0.809	0.590	0.828	0.604	0.903	0.737	A	B	B	C	C	C	C	C	B	C
CEL2	7FG	TR2	NONE	SOL		0.033		0.325	0.003	0.013	0.493	0.067	0.015	0.047	C	C	C	C	C	C	C	C	C	C
CEL2	7FG	TR2	NONE	WHG	0.590	0.466	0.152	0.684	0.700	0.644	0.430	0.335	0.544	0.131	A	A	A	A	A	A	A	A	A	A
CEL2	7FG	TR3	NONE	ANF					0.058										A					
CEL2	7FG	TR3	NONE	HAD					1.000										A					
CEL2	7FG	TR3	NONE	HKE					1.000					1.000					A					A
CEL2	7FG	TR3	NONE	PLE					1.000										A					
CEL2	7FG	TR3	NONE	WHG					1.000			0.027		1.000					A			C		A

Table 5.6.3.2.9. Discard rate and associated coverage index for Pelagic Species making up more than 1% of total pelagic landings by pelagic gears (trawl and seine), and *Nephrops* in Cel2 (7fg) by Gear and Special condition as defined under the cod management plan. A, ≥ 66% of landings have associated discard sampling, B, ≥ 33% < 66% of landings have associated discard sampling, C < 33% of landings have associated discard sampling. 2003-2013. Gear/Special condition combinations without discard data omitted.

annex	reg_area	reg_gear	specon	species	2004 R	2005 R	2006 R	2007 R	2008 R	2009 R	2010 R	2011 R	2012 R	2013 R	2004 DC	2005 DC	2006 DC	2007 DC	2008 DC	2009 DC	2010 DC	2011 DC	2012 DC	2013 DC
CEL2	7FG	BT2	NONE	HER				1.000		1.000		0.480	1.000	1.000	A			A		A		C	A	A
CEL2	7FG	BT2	NONE	MAC				1.000	1.000	1.000		1.000	1.000	1.000				C	A	A		A	A	A
CEL2	7FG	BT2	NONE	PIL								1.000		1.000								A		A
CEL2	7FG	BT2	NONE	SPR				1.000										A						
CEL2	7FG	BT2	NONE	WHB				1.000		1.000		1.000	1.000	1.000				A		A		A	A	A
CEL2	7FG	DREDGE	NONE	SPR									1.000										A	
CEL2	7FG	GN1	NONE	JAX						0.730										C				
CEL2	7FG	GN1	NONE	MAC						0.599		0.041		0.100						C	C	C	C	B
CEL2	7FG	GN1	NONE	PIL						1.000				1.000						A				A
CEL2	7FG	GN1	NONE	WHB						1.000										A				
CEL2	7FG	GT1	NONE	MAC							0.909			0.747							C			A
CEL2	7FG	OTTER	NONE	HER	0.000	0.000		0.001	0.000	0.000		0.000			C	A		A	A	A	A	A		
CEL2	7FG	OTTER	NONE	JAX	1.000	1.000	1.000	1.000							A	A	A	A						
CEL2	7FG	OTTER	NONE	MAC	0.007	0.184		0.296	1.000	0.068	0.930		0.999		C	A		C	C	C	B		A	
CEL2	7FG	OTTER	NONE	NEP						0.167			0.141							A			A	
CEL2	7FG	OTTER	NONE	WHB	1.000	1.000	1.000	1.000							A	A	A	A						
CEL2	7FG	PEL_TRAWL	NONE	HER	0.000										A									
CEL2	7FG	PEL_TRAWL	NONE	JAX	0.000										C									
CEL2	7FG	PEL_TRAWL	NONE	MAC	0.231										A									
CEL2	7FG	PEL_TRAWL	NONE	SPR	0.000										A									
CEL2	7FG	TR1	NONE	HER	0.875	0.987		1.000	0.980	0.645	0.167	0.568	0.992	0.962	A	A		C	A	A	A	A	A	A
CEL2	7FG	TR1	NONE	HOM													A							
CEL2	7FG	TR1	NONE	JAX	1.000	1.000	0.650	1.000	0.999	0.995	1.000	0.993	1.000	0.938	A	A	C	A	A	A	C	C	A	C
CEL2	7FG	TR1	NONE	MAC	0.695	0.922		0.943	0.677	0.962	0.965	0.885	0.998	0.986	B	A		B	A	A	A	A	C	A
CEL2	7FG	TR1	NONE	NEP						0.208	0.152	0.059	0.119	0.168	A	B	B	C	C	A	A	A	A	A
CEL2	7FG	TR1	NONE	PIL						1.000			0.778							A			A	
CEL2	7FG	TR1	NONE	SPR	1.000			1.000	1.000	1.000	1.000		1.000	1.000	A			A	A	A	A		A	A
CEL2	7FG	TR1	NONE	WHB	1.000	1.000	1.000	1.000	1.000	1.000	0.999	1.000	1.000	1.000	A	A	A	A	A	A	C	A	A	A
CEL2	7FG	TR2	NONE	HER	0.962	1.000		0.888	0.225	0.979	0.981	0.844	0.958	1.000	A	C		A	A	A	A	A	A	C
CEL2	7FG	TR2	NONE	HOM											A	C								
CEL2	7FG	TR2	NONE	JAX	0.995	1.000	0.972	0.999	0.995	1.000	0.989	1.000	0.994	1.000	C	A	B	C	B	C	C	A	C	A
CEL2	7FG	TR2	NONE	MAC	0.693	0.913	0.015	0.907	0.790	0.943	0.791	0.951	0.988	0.950	A	A	C	A	B	A	B	C	B	C
CEL2	7FG	TR2	NONE	NEP						0.210	0.144	0.061	0.086	0.134	C		C		C	A	A	A	A	A
CEL2	7FG	TR2	NONE	PIL						1.000			1.000		A					A		A	A	
CEL2	7FG	TR2	NONE	SPR	0.863			1.000	1.000	1.000	1.000			1.000	A			A	A	A	A		A	A
CEL2	7FG	TR2	NONE	WHB	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	A	A	A	A	A	A	A	A	A	A
CEL2	7FG	TR3	NONE	HER					1.000										A	A		A		
CEL2	7FG	TR3	NONE	JAX					1.000										A					
CEL2	7FG	TR3	NONE	MAC					1.000										A					

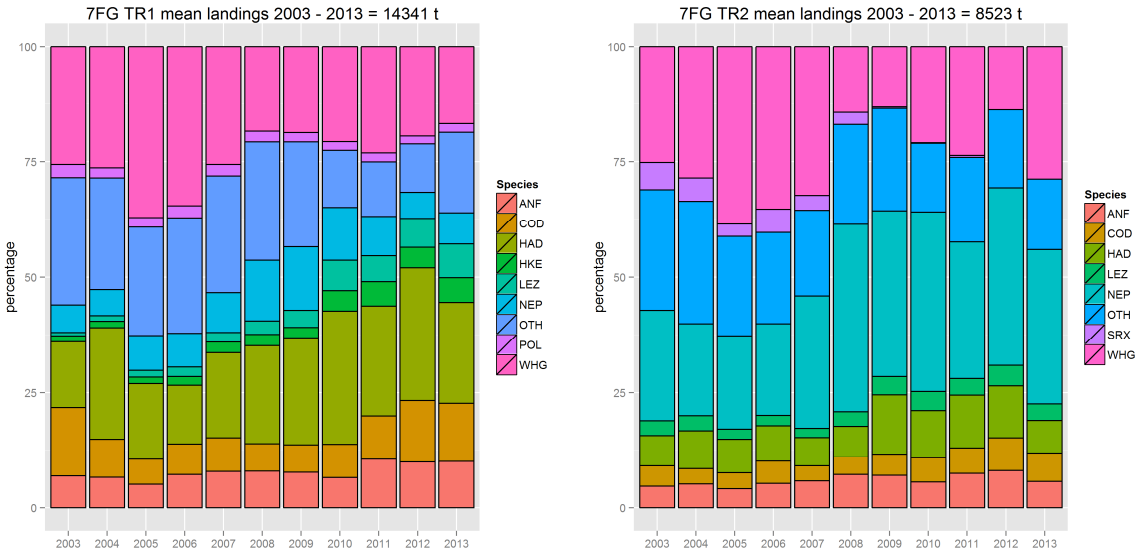


Figure 5.6.3.2.3. Relative percentage (in volume, not taking into account the discards) of each species in the total catches for TR1 (left), and TR2 (right). 2003-2013. Note that landings are only those reported in accordance with the data call, not total landings by the fisheries.

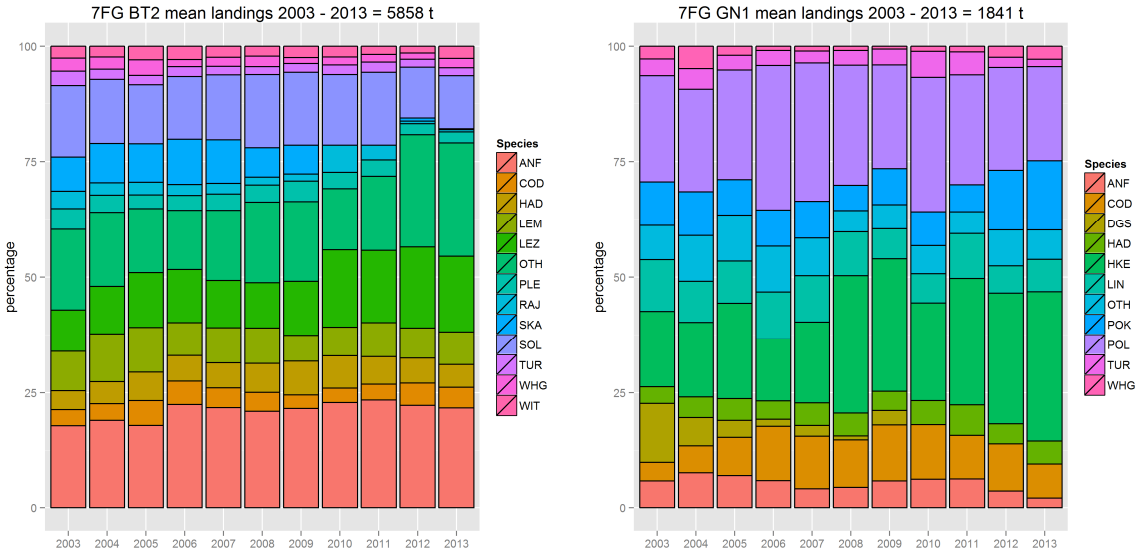


Figure 5.6.3.2.4 Relative percentage (in volume, not taking into account the discards) of each species in the total catches for BT2 (left) and GN1 (right). 2003-2013. Note that landings are only those reported in accordance with the data call, not total landings by the fisheries.

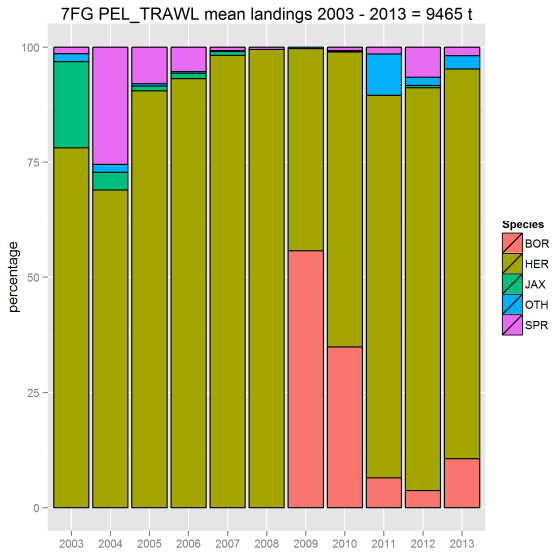


Figure 5.6.3.2.5 relative percentage (in volume, not taking into account the discards) of each species in the total catches for Pelagic Trawl, 2003-2013. Note that landings are only those reported in accordance with the data call, not total landings by the fisheries.

5.6.4 ToR 1.d CPUE and LPUE of cod by area, fisheries and Member States

5.6.4.1 ICES sub-divisions 7bcefghjk (Cel1)

STECF EWG 14-13 notes that discard information is scarce. Figure 5.6.4.1.1 displays the trends in cod CPUE and LPUE, 2003-2013 for the four gears with highest CPUE or LPUE over the past 5 years. The increasing LPUE and CPUE trends in recent years are consistent with the ICES 2013 stock assessment which shows a large increase in stock size following a strong 2010 year class.

Tables 5.6.4.1.1 – 2 shows CPUE and LPUE figures by all gear types. Information by nation is not presented in this report but are available on the JRC website.

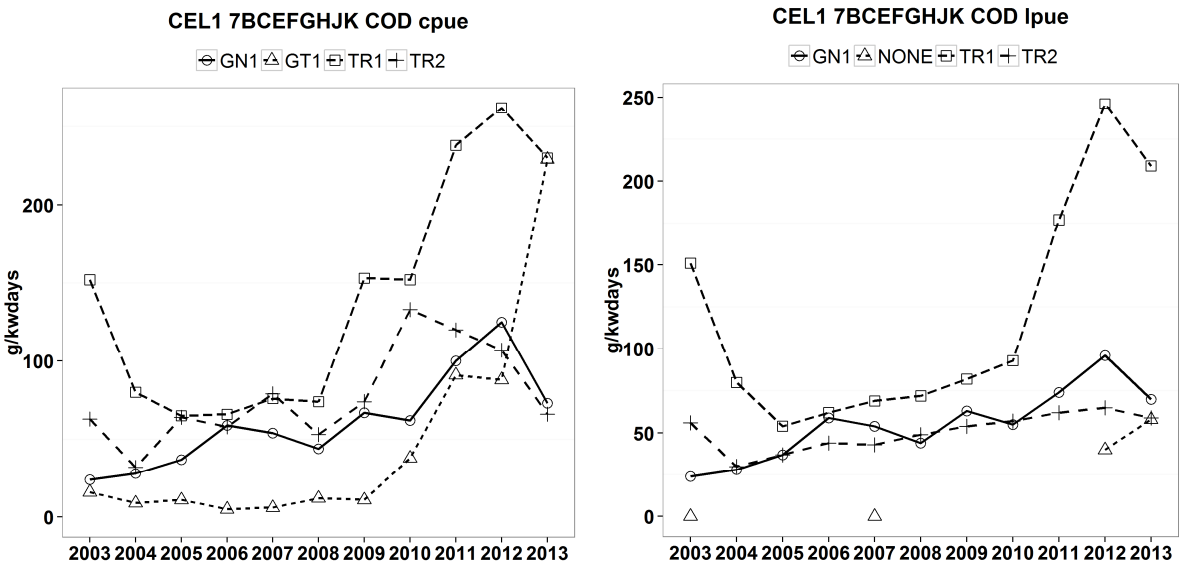


Figure 5.6.4.1.1 CPUE and LPUE for cod and for Celtic Sea and for gear category and years 2003-2013.

Table 5.6.4.1.1 Cod CPUE (g/(kW*days)) by gear/mesh-size category and year, 2003-2013. Celtic Sea: ICES areas VIIbcefghjk

annex	species	reg_area_cod	reg_gear_cod	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012	CPUE 2013	CPUE 2011-2013
CEL1	COD	7BCEFGHJK	TR1	152	80	65	66	76	74	153	152	238	262	230	243
CEL1	COD	7BCEFGHJK	GT1	16	9	11	5	6	12	11	38	91	88	229	133
CEL1	COD	7BCEFGHJK	GN1	24	28	37	59	54	44	67	62	100	125	73	100
CEL1	COD	7BCEFGHJK	TR2	63	32	64	58	79	53	74	133	120	107	66	96
CEL1	COD	7BCEFGHJK	PEL_SEINE	10	14	3					0		148	84	86
CEL1	COD	7BCEFGHJK	BT2	23	25	34	32	36	36	30	61	109	75	59	81
CEL1	COD	7BCEFGHJK	NONE	0				0					40	58	43
CEL1	COD	7BCEFGHJK	TR3	0	0	0	0		0	0	45	62	0	0	28
CEL1	COD	7BCEFGHJK	OTTER	15	21	0	6	2	0	0	9	22	1	0	5
CEL1	COD	7BCEFGHJK	LL1	17	6	4	14	2	2	3	3	11	1	2	2
CEL1	COD	7BCEFGHJK	PEL_TRAWL	0	1	0	0	0	0	0	0	1	2	0	1
CEL1	COD	7BCEFGHJK	BEAM	19	37	13	0	0	0	0	0	0	0	0	0
CEL1	COD	7BCEFGHJK	BT1		19	0	0	0	0	0	0	0		0	0
CEL1	COD	7BCEFGHJK	DEM_SEINE	20	54	55	0	0		0			0	0	0
CEL1	COD	7BCEFGHJK	DREDGE	0	0	0	0	0	0	0	1	0	0	0	0
CEL1	COD	7BCEFGHJK	POTS	0	0	0	0	0	0	1	0	1	0	0	0

Table 5.6.4.1.2 Cod LPUE (g/(kW*days)) by gear/mesh-size category and year, 2003-2013. Celtic Sea: ICES areas VIIbcefghjk

annex	species	reg_area_cod	reg_gear_cod	LPUE 2003	LPUE 2004	LPUE 2005	LPUE 2006	LPUE 2007	LPUE 2008	LPUE 2009	LPUE 2010	LPUE 2011	LPUE 2012	LPUE 2013	LPUE 2011-2013
CEL1	COD	7BCEFGHJK	TR1	151	80	54	62	69	72	82	93	177	246	209	211
CEL1	COD	7BCEFGHJK	PEL_SEINE	10	14	3					0		148	84	86
CEL1	COD	7BCEFGHJK	GN1	24	28	37	59	54	44	63	55	74	96	70	80
CEL1	COD	7BCEFGHJK	TR2	56	30	37	44	43	49	54	57	62	65	59	62
CEL1	COD	7BCEFGHJK	BT2	23	25	34	32	31	29	27	28	36	65	55	52
CEL1	COD	7BCEFGHJK	GT1	16	9	11	5	6	12	11	23	33	57	52	47
CEL1	COD	7BCEFGHJK	NONE	0				0					40	58	43
CEL1	COD	7BCEFGHJK	TR3	0	0	0	0		0	0	45	62	0	0	28
CEL1	COD	7BCEFGHJK	OTTER	15	21	0	0	2	0	0	6	17	1	0	4
CEL1	COD	7BCEFGHJK	LL1	17	6	4	14	2	2	3	3	11	1	2	2
CEL1	COD	7BCEFGHJK	PEL_TRAWL	0	0	0	0	0	0	0	0	1	2	0	1
CEL1	COD	7BCEFGHJK	BEAM	19	37	13	0	0	0	0	0	0	0	0	0
CEL1	COD	7BCEFGHJK	BT1		19	0	0	0	0	0	0	0		0	0
CEL1	COD	7BCEFGHJK	DEM_SEINE	20	54	55	0	0		0			0	0	0
CEL1	COD	7BCEFGHJK	DREDGE	0	0	0	0	0	0	0	1	0	0	0	0
CEL1	COD	7BCEFGHJK	POTS	0	0	0	0	0	0	1	0	1	0	0	0

5.6.4.2 ICES subdivisions 7fg (Cel2)

STECF EWG 14-13 notes that discard information is scarce. Figure 5.6.4.2.1 displays the trends in cod CPUE and LPUE, 2003-2013 for the four gears with highest CPUE or LPUE over the past 5 years. The increasing LPUE and CPUE trends in recent years are consistent with the ICES 2013 stock assessment

which shows a large increase in stock size following a strong 2010 year class.
Tables 5.6.4.2.1 and 5.6.4.2.2 show LPUE and CPUE by gear types. Information by nation is not presented in this report but are available on the JRC website.

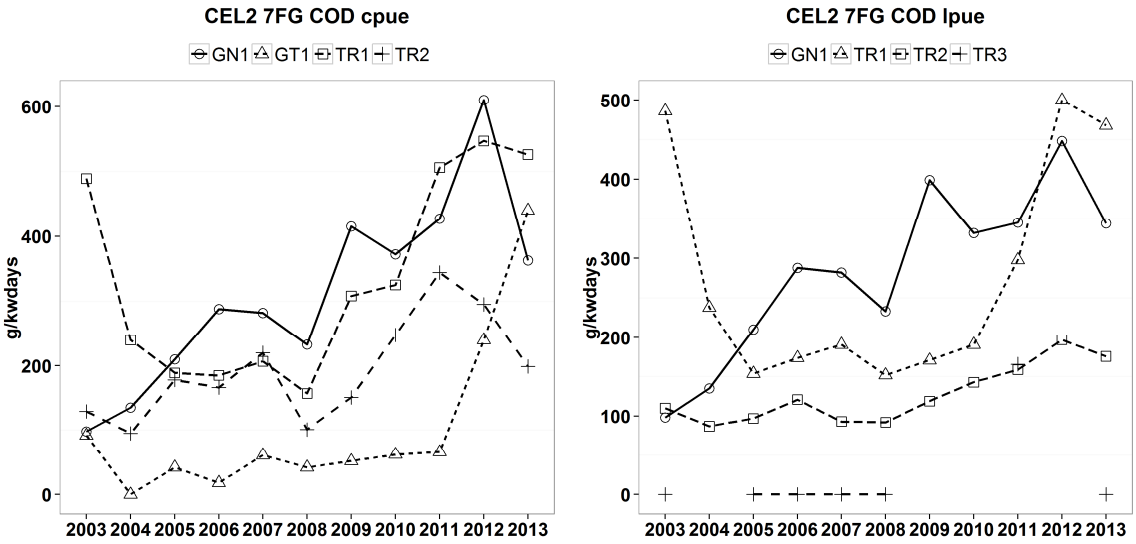


Figure 5.6.4.2.1 CPUE and LPUE for cod and for Divisions VIIfg and for gear category and years 2003-2013.

Table 5.6.4.2.1 Cod CPUE (g/(kW*days)) by gear/mesh-size category and year, 2003-2013. Divisions VIIfg

annex	species	reg_area_cod	reg_gear_cod	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012	CPUE 2013	CPUE 2011-2013
CEL2	COD	7FG	PEL_SEINE	194	133	120	0	0	0	0			663	517	587
CEL2	COD	7FG	TR1	489	240	189	185	207	157	308	325	506	547	526	527
CEL2	COD	7FG	GN1	98	135	210	288	282	233	415	372	427	610	363	469
CEL2	COD	7FG	TR2	129	95	178	166	220	101	151	248	344	295	199	276
CEL2	COD	7FG	GT1	92	0	42	18	61	42	52	62	66	240	440	266
CEL2	COD	7FG	NONE	0	0	0	0			0	0	0	135	191	154
CEL2	COD	7FG	TR3	0		0	0	0	0			166		0	149
CEL2	COD	7FG	BT2	34	38	55	54	60	66	48	67	90	116	85	97
CEL2	COD	7FG	LL1	36		39	61	0		0	0	0	0	77	35
CEL2	COD	7FG	PEL_TRAWL	2	14		6	0		5		19	42	3	21
CEL2	COD	7FG	OTTER	167	116	0	115	0	0	0	36	25	0	0	11
CEL2	COD	7FG	BEAM	21	38	109		0	0	0	0	0	0	0	0
CEL2	COD	7FG	BT1		0	0	0	0	0	0	0	0	0	0	0
CEL2	COD	7FG	DEM_SEINE	0	65	133	0	0	0	0	0	0	0	0	0
CEL2	COD	7FG	DREDGE	3	6		0				0	0		0	0
CEL2	COD	7FG	POTS	0	2	0				0	0	1	0	0	0

Table 5.6.4.2.2 Cod LPUE (g/(kW*days)) by gear/mesh-size category and year, 2003-2013. Divisions VIIfg

annex	species	reg_area_cor	reg_gear_cod	LPUE 2003	LPUE 2004	LPUE 2005	LPUE 2006	LPUE 2007	LPUE 2008	LPUE 2009	LPUE 2010	LPUE 2011	LPUE 2012	LPUE 2013	LPUE 2011-2013
CEL2	COD	7FG	PEL_SEINE	194	133	120	0	0	0	0			663	517	587
CEL2	COD	7FG	TR1	486	238	154	174	191	152	171	191	298	500	468	429
CEL2	COD	7FG	GN1	98	135	210	288	282	233	399	332	345	448	344	380
CEL2	COD	7FG	TR2	110	87	97	121	93	92	119	143	159	197	176	179
CEL2	COD	7FG	NONE	0	0	0	0			0	0	0	135	191	154
CEL2	COD	7FG	TR3	0		0	0	0	0			166		0	149
CEL2	COD	7FG	BT2	34	37	55	54	49	51	41	43	55	97	81	79
CEL2	COD	7FG	GT1	92	0	42	18	61	42	52	41	28	68	113	74
CEL2	COD	7FG	LL1	36		39	61	0		0	0	0	0	77	35
CEL2	COD	7FG	PEL_TRAWL	2	12		6	0		5		19	42	3	21
CEL2	COD	7FG	OTTER	167	113	0	0	0	0	0	36	25	0	0	11
CEL2	COD	7FG	BEAM	21	38	109		0	0	0	0	0	0	0	0
CEL2	COD	7FG	BT1		0	0	0	0	0	0	0	0	0	0	0
CEL2	COD	7FG	DEM_SEINE	0	65	133	0	0	0	0	0	0	0	0	0
CEL2	COD	7FG	DREDGE	3	6		0				0	0		0	0
CEL2	COD	7FG	POTS	0	2	0				0	0	1	0	0	0

5.6.5 ToR 2 Main species by gear group and remarks on quality of catches and discard estimates

5.6.5.1 ICES sub-divisions 7bcefghjk (Cel1)

Table 5.6.5.1.1 lists the relative landings contributions by major demersal species by the major gears for 2003-2013, ranked in ascending order in 2013. TR1 gear is the main gear landing anglerfish and cod; TR2 is the main gear catching *Nephrops*; BT2 is the main gear landing plaice and sole, while LL1 is the main gear landing hake.

Table 5.6.5.1.1 Relative landings contributions by major demersal species as caught by the major gears, ranked in ascending order in 2013, 2003-2013.

annex	reg_area	species	reg_gear	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel	2011 Rel	2012 Rel	2013 Rel
CEL1	7BCEFGHJK	ANF	TR3	0.00014	0	0	0.00044	0	0	0	0.00025	0.00112	0	0
CEL1	7BCEFGHJK	ANF	BT1	0.00007	0.00069									0.00004
CEL1	7BCEFGHJK	ANF	LL1	0.0009	0.00031	0.00043	0.00006	0.00022	0.00006	0.00012	0.00008	0.00011	0.00019	0.00019
CEL1	7BCEFGHJK	ANF	GT1	0.06054	0.0847	0.09292	0.07069	0.0711	0.08119	0.0778	0.01733	0.03998	0.0427	0.04905
CEL1	7BCEFGHJK	ANF	GN1	0.13823	0.15739	0.18081	0.10996	0.13889	0.20987	0.20058	0.14327	0.11359	0.11151	0.1039
CEL1	7BCEFGHJK	ANF	BT2	0.16152	0.17632	0.1764	0.18641	0.18113	0.15705	0.15221	0.25228	0.20128	0.17574	0.13738
CEL1	7BCEFGHJK	ANF	TR2	0.31426	0.28737	0.29668	0.2761	0.26982	0.23343	0.21175	0.16512	0.14415	0.19161	0.20896
CEL1	7BCEFGHJK	ANF	TR1	0.32435	0.29322	0.25276	0.35635	0.33884	0.3184	0.35754	0.42167	0.49978	0.47825	0.50048
CEL1	7BCEFGHJK	COD	BT1		0.00042					0				0
CEL1	7BCEFGHJK	COD	TR3	0	0	0	0		0	0	0.00104	0.00108	0	0
CEL1	7BCEFGHJK	COD	LL1	0.00366	0.00209	0.00175	0.00865	0.00161	0.00239	0.00348	0.00521	0.00997	0.00432	0.00238
CEL1	7BCEFGHJK	COD	GT1	0.0039	0.00377	0.00568	0.00329	0.00524	0.00622	0.00566	0.01042	0.01062	0.01266	0.00935
CEL1	7BCEFGHJK	COD	GN1	0.03949	0.08124	0.09305	0.10214	0.10435	0.09522	0.12233	0.09792	0.08194	0.07893	0.05831
CEL1	7BCEFGHJK	COD	BT2	0.07362	0.13693	0.19659	0.14498	0.13014	0.10574	0.08098	0.07083	0.05918	0.07908	0.07531
CEL1	7BCEFGHJK	COD	TR2	0.25914	0.24162	0.34862	0.36367	0.35778	0.3555	0.33	0.28333	0.17039	0.14043	0.14791
CEL1	7BCEFGHJK	COD	TR1	0.62019	0.53392	0.3543	0.37727	0.40089	0.43493	0.45755	0.53125	0.66681	0.68459	0.70673
CEL1	7BCEFGHJK	HKE	TR3	0	0	0	0	0	0	0	0.00013	0.00071	0	0
CEL1	7BCEFGHJK	HKE	GT1	0.00118	0.00069	0.00135	0.00164	0.0013	0.00117	0.00051	0.00134	0.00061	0.00309	0.00155
CEL1	7BCEFGHJK	HKE	BT2	0.02637	0.01892	0.01734	0.01824	0.01522	0.01102	0.01386	0.00954	0.00628	0.0032	0.00238
CEL1	7BCEFGHJK	HKE	TR2	0.13586	0.12872	0.13401	0.10804	0.09243	0.09259	0.08932	0.06666	0.042	0.0302	0.02528
CEL1	7BCEFGHJK	HKE	TR1	0.35602	0.35917	0.4018	0.37956	0.35537	0.30028	0.32495	0.29001	0.26093	0.18369	0.17221
CEL1	7BCEFGHJK	HKE	GN1	0.46974	0.48674	0.43018	0.36927	0.30078	0.26957	0.4348	0.52049	0.6165	0.38541	0.28871
CEL1	7BCEFGHJK	HKE	LL1	0.01083	0.00577	0.01532	0.12325	0.23488	0.32536	0.13655	0.11181	0.07298	0.39442	0.50986
CEL1	7BCEFGHJK	HKE	BT1	0	0									
CEL1	7BCEFGHJK	NEP	GT1	0.00021		0	0	0	0	0	0.00028	0.00037	0.00014	0
CEL1	7BCEFGHJK	NEP	LL1	0.00021							0	0	0	0
CEL1	7BCEFGHJK	NEP	TR3	0.00189			0.00041				0.00014	0		0.00014
CEL1	7BCEFGHJK	NEP	GN1	0.00021	0.00412	0.00255	0.00101	0	0.00059	0.00032	0.00014	0	0.00043	0.00028
CEL1	7BCEFGHJK	NEP	BT2	0.01637	0.02301	0.01769	0.01888	0.01278	0.00514	0.00533	0.00321	0.0045	0.00144	0.00166
CEL1	7BCEFGHJK	NEP	TR1	0.26946	0.30862	0.28712	0.28151	0.2116	0.25551	0.34917	0.31047	0.36464	0.2755	0.33481
CEL1	7BCEFGHJK	NEP	TR2	0.71165	0.66424	0.69263	0.69819	0.77562	0.73877	0.64518	0.68577	0.63048	0.72249	0.66312
CEL1	7BCEFGHJK	NEP	BT1	0										
CEL1	7BCEFGHJK	PLE	BT1		0				0.01641				0	0
CEL1	7BCEFGHJK	PLE	TR3	0	0	0	0.00059	0.0014	0.00071	0.00338	0.00062	0.00109	0.00053	0.00056
CEL1	7BCEFGHJK	PLE	LL1	0	0	0	0	0	0	0	0.00062	0.00055	0.00105	0.00112
CEL1	7BCEFGHJK	PLE	GT1	0.00837	0.01424	0.02063	0.01784	0.01681	0.00428	0.00406	0.01484	0.01148	0.01055	0.00787
CEL1	7BCEFGHJK	PLE	GN1	0.0068	0.01196	0.01	0.01308	0.01331	0.00999	0.01217	0.0167	0.01858	0.03006	0.03262
CEL1	7BCEFGHJK	PLE	TR1	0.10199	0.08257	0.065	0.05648	0.06793	0.09914	0.11291	0.13234	0.15628	0.16192	0.1288
CEL1	7BCEFGHJK	PLE	TR2	0.25366	0.23576	0.27625	0.34126	0.34874	0.36662	0.33604	0.32591	0.28962	0.26793	0.28121
CEL1	7BCEFGHJK	PLE	BT2	0.62918	0.65547	0.62813	0.57075	0.55182	0.50285	0.53144	0.50897	0.5224	0.52795	0.54781
CEL1	7BCEFGHJK	SOL	BT1	0	0.00051								0	0.00049
CEL1	7BCEFGHJK	SOL	TR3	0.00048	0	0	0	0	0	0.00062	0.00059	0.00102	0.00048	0.00049
CEL1	7BCEFGHJK	SOL	LL1	0	0	0	0.0005	0	0.00059	0	0	0.00051	0.00048	0.00147
CEL1	7BCEFGHJK	SOL	GT1	0.02958	0.03133	0.04793	0.03168	0.03982	0.02604	0.02745	0.0275	0.04264	0.0392	0.02398
CEL1	7BCEFGHJK	SOL	GN1	0.01479	0.02054	0.01659	0.01782	0.01692	0.02367	0.02495	0.02692	0.02437	0.02964	0.0279
CEL1	7BCEFGHJK	SOL	TR1	0.06202	0.04725	0.04009	0.03713	0.03634	0.04852	0.05053	0.06144	0.0665	0.06788	0.06706
CEL1	7BCEFGHJK	SOL	TR2	0.18845	0.17309	0.17788	0.21931	0.22947	0.22899	0.25078	0.2165	0.18934	0.15966	0.16544
CEL1	7BCEFGHJK	SOL	BT2	0.70468	0.72727	0.71751	0.69356	0.67745	0.67219	0.64566	0.66706	0.67563	0.70268	0.71317

5.6.5.2 ICES subdivisions 7fg (Cel2)

Table 5.6.5.2.1 lists the relative landings contributions by major demersal species by the major gears for 2003-2013, ranked in ascending order in 2013. TR1 is the main gear landing anglerfish, cod and hake; TR2 is the main gear landing *Nephrops*, while BT2 is the main gear landing plaice and sole.

Table 5.6.5.2.1 Relative landings contributions by major demersal species as caught by the major gears, ranked in ascending order in 2012, 2003-2013.

annex	reg_area	species	reg_gear	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel	2011 Rel	2012 Rel	2013 Rel
CEL2	7FG	ANF	BT1	0.00038	0.00036									0.00021
CEL2	7FG	ANF	LL1	0	0	0	0	0	0	0.0004	0	0	0	0.00021
CEL2	7FG	ANF	GT1	0.00227	0.00253	0.00787	0.01149	0.00656	0.01108	0.01196	0.00587	0.01143	0.01322	0.01412
CEL2	7FG	ANF	GN1	0.04154	0.06286	0.05756	0.04559	0.03318	0.03579	0.05062	0.04849	0.046	0.0252	0.02276
CEL2	7FG	ANF	TR2	0.15219	0.16438	0.21325	0.20307	0.24572	0.25948	0.21562	0.17599	0.12043	0.12412	0.08135
CEL2	7FG	ANF	BT2	0.4392	0.47363	0.48199	0.45747	0.41888	0.34214	0.33599	0.40555	0.34458	0.38455	0.36712
CEL2	7FG	ANF	TR1	0.36443	0.29624	0.23934	0.28238	0.29566	0.35151	0.38541	0.3641	0.47756	0.45291	0.51423
CEL2	7FG	ANF	TR3			0	0		0			0		
CEL2	7FG	COD	BT1		0									0
CEL2	7FG	COD	TR3			0	0		0			0.00045		0
CEL2	7FG	COD	LL1	0.00036	0	0.00188	0.00125	0	0	0	0.00168	0.00449	0.00194	0.0005
CEL2	7FG	COD	GT1	0.00036	0	0.00063	0.00125	0.00196	0.00162	0.0007	0.00112	0.0018	0.00243	0.00373
CEL2	7FG	COD	GN1	0.02788	0.0772	0.10345	0.11	0.11749	0.11851	0.14456	0.10297	0.08899	0.0667	0.04894
CEL2	7FG	COD	BT2	0.08074	0.14673	0.21755	0.16813	0.14687	0.125	0.0807	0.07946	0.08135	0.09871	0.0877
CEL2	7FG	COD	TR2	0.13794	0.17325	0.28276	0.29563	0.24217	0.25162	0.24702	0.23615	0.14337	0.12394	0.10335
CEL2	7FG	COD	TR1	0.75272	0.60283	0.39373	0.42375	0.49151	0.50325	0.52702	0.57862	0.67955	0.70628	0.75578
CEL2	7FG	HKE	LL1	0	0.00695	0.00399	0.00173		0	0	0	0	0	0
CEL2	7FG	HKE	TR3			0	0		0			0		0
CEL2	7FG	HKE	GT1	0	0	0	0.0052	0.00441	0.00249	0	0.00089	0.00067	0.01158	0.01408
CEL2	7FG	HKE	BT2	0.10891	0.0765	0.0758	0.10572	0.08664	0.03736	0.03288	0.04472	0.03034	0.02811	0.0264
CEL2	7FG	HKE	TR2	0.19661	0.19332	0.1742	0.22184	0.17327	0.13574	0.10431	0.11091	0.03978	0.04686	0.02992
CEL2	7FG	HKE	GN1	0.4413	0.48401	0.53457	0.33276	0.38767	0.51183	0.53628	0.27639	0.34659	0.37376	0.35768
CEL2	7FG	HKE	TR1	0.25318	0.23922	0.21144	0.33276	0.34802	0.31258	0.32653	0.56708	0.5826	0.53969	0.57193
CEL2	7FG	HKE	BT1	0	0									
CEL2	7FG	NEP	GT1	0.00034									0	0
CEL2	7FG	NEP	LL1											0
CEL2	7FG	NEP	GN1	0	0.00512	0.00287	0.00147	0	0.00085	0.00045		0	0.00075	0.00052
CEL2	7FG	NEP	BT2	0.02262	0.03114	0.02527	0.03162	0.0205	0.00705	0.00712	0.00463	0.00743	0.00249	0.00284
CEL2	7FG	NEP	TR1	0.28089	0.27395	0.2449	0.2739	0.21346	0.29197	0.38415	0.34407	0.44541	0.30836	0.42179
CEL2	7FG	NEP	TR2	0.69615	0.68979	0.72696	0.69301	0.76604	0.70013	0.60828	0.6513	0.54716	0.6884	0.57486
CEL2	7FG	NEP	BT1	0										
CEL2	7FG	NEP	TR3				0					0		
CEL2	7FG	PLE	BT1		0									0
CEL2	7FG	PLE	LL1	0	0		0	0	0	0	0	0	0	0
CEL2	7FG	PLE	GT1	0	0	0	0	0	0	0	0.00249	0.00518	0.00255	0.00286
CEL2	7FG	PLE	GN1	0.002	0.00234	0.00293	0.01108	0.01075	0.00515	0.00725	0.00746	0.00777	0.00765	0.00857
CEL2	7FG	PLE	TR2	0.14571	0.16628	0.21701	0.34903	0.31183	0.37371	0.32367	0.28109	0.23316	0.18112	0.14857
CEL2	7FG	PLE	TR1	0.27146	0.23653	0.21114	0.16066	0.18011	0.25	0.25121	0.31592	0.27202	0.29847	0.28857
CEL2	7FG	PLE	BT2	0.58084	0.59485	0.56891	0.47922	0.49731	0.37113	0.41787	0.39303	0.48187	0.5102	0.55143
CEL2	7FG	PLE	TR3			0			0			0		
CEL2	7FG	SOL	LL1	0	0	0	0	0	0	0	0	0	0	0
CEL2	7FG	SOL	BT1	0	0									0.00095
CEL2	7FG	SOL	GN1	0.00177	0.00281	0.00106	0.00571	0.00447	0.00269	0.0026	0.00469	0.00299	0.00374	0.00284
CEL2	7FG	SOL	GT1		0.00187	0	0	0	0		0.00352	0.00597	0.00187	0.00473
CEL2	7FG	SOL	TR1	0.06814	0.04022	0.04228	0.03771	0.04358	0.04576	0.04551	0.03751	0.03781	0.03551	0.0397
CEL2	7FG	SOL	TR2	0.03628	0.05239	0.06977	0.12	0.11508	0.12382	0.14174	0.13599	0.1194	0.08505	0.06805
CEL2	7FG	SOL	BT2	0.89381	0.90271	0.88689	0.83657	0.83687	0.82773	0.81014	0.81829	0.83383	0.87383	0.88374
CEL2	7FG	SOL	TR3			0						0		

5.6.6 ToR 3 Information on small boats (<10m by area)

Information for French and UK under 10m fisheries was available; Irish information was not available. Information for other countries is given by gear type, however this information is known to be incomplete.

5.6.6.1 Fishing effort of small boats by area, Member State and fisheries

Table 5.6.6.1.1 Nominal effort (kWdays at sea) by Member State for both areas, the entire Celtic Sea (Cel 1) and the sub-divisions 7fg only (Cel2). The countries with the highest effort were England (UK) and France. The English effort remained stable between 2012 and 2013. Relatively to 2004 the under 10 English fleet effort increased significantly. In 2013 under 10m French effort increased 8% in relation to 2012. French effort appears to have increased significantly since 2009 though this is due to incomplete data prior to this period rather than an observed increase in effort by the fisheries. The gear that contributed most for the under 10m effort were pots.

ANNEX	REG.AREA.COD	REG.GEAR.COD	SPECON	COUNTRY	VESSEL_LENGTH	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
CEL1	7BCEFGHJK	BEAM	NONE	ENG	U10M	0		207	112	471		221	221		221
CEL1	7BCEFGHJK	BEAM	NONE	FRA	U10M										295
CEL1	7BCEFGHJK	BT2	NONE	ENG	U10M		12562	13305	15748	11579	3677				
CEL1	7BCEFGHJK	BT2	NONE	FRA	U10M	7998						2565	594	316	594
CEL1	7BCEFGHJK	DREDGE	NONE	ENG	U10M	48934	33463	161077	187150	185413	158641	125421	152417	125370	106433
CEL1	7BCEFGHJK	DREDGE	NONE	FRA	U10M	1020244	658413	661222	455336	279707	277385	468049	531299	498655	437950
CEL1	7BCEFGHJK	DREDGE	NONE	GBG	U10M					560	560				
CEL1	7BCEFGHJK	DREDGE	NONE	NIR	U10M					119		573			
CEL1	7BCEFGHJK	DREDGE	NONE	SCO	U10M						22			1968	8851
CEL1	7BCEFGHJK	GN1	NONE	ENG	U10M	69050	74894	563412	730928	783075	667972	624143	716419	804574	714720
CEL1	7BCEFGHJK	GN1	NONE	FRA	U10M	470349	383942	399424	310109	150085	150085	407988	289702	355761	354980
CEL1	7BCEFGHJK	GN1	NONE	GBG	U10M					672	784	2829	4480	4831	2120
CEL1	7BCEFGHJK	GN1	NONE	IOM	U10M					158					
CEL1	7BCEFGHJK	GN1	NONE	SCO	U10M			194	1732	339		85	60	2618	803
CEL1	7BCEFGHJK	GT1	NONE	ENG	U10M	0	160	709	3026	3162	1699	1523	974	583	47
CEL1	7BCEFGHJK	GT1	NONE	FRA	U10M	233202	202572	216971	255766	96495	96385	204060	235068	233191	165955
CEL1	7BCEFGHJK	LL1	NONE	ENG	U10M	38722	40782	120378	267883	292465	388625	464270	476390	497331	465959
CEL1	7BCEFGHJK	LL1	NONE	FRA	U10M	334891	286741	358796	264220	133317	133317	671963	691829	643782	679427
CEL1	7BCEFGHJK	LL1	NONE	GBG	U10M					325	896		602	478	
CEL1	7BCEFGHJK	LL1	NONE	SCO	U10M			169	254			127	169	4	191
CEL1	7BCEFGHJK	NONE	NONE	FRA	U10M	19490	20585	11710	21071	9972	9972		100435		
CEL1	7BCEFGHJK	NONE	NONE	SCO	U10M						170			75	
CEL1	7BCEFGHJK	OTTER	NONE	ENG	U10M	622	1858	1939	3166	2913	4295		523	1463	1817
CEL1	7BCEFGHJK	OTTER	NONE	FRA	U10M	79589	69392	40911	35208	4735	4735	25069	19283	14440	15609
CEL1	7BCEFGHJK	PEL_SEINE	NONE	ENG	U10M				1300		354	1769	1723		
CEL1	7BCEFGHJK	PEL_SEINE	NONE	FRA	U10M	364		540	295			60	729		1000
CEL1	7BCEFGHJK	PEL_TRAWL	NONE	ENG	U10M				1106	8244	144		222	253	
CEL1	7BCEFGHJK	PEL_TRAWL	NONE	FRA	U10M		2918		900	540	540	2996	3337	2222	1662
CEL1	7BCEFGHJK	POTS	NONE	ENG	U10M	92568	94533	1624452	1804630	1796809	1088507	1170435	1118346	1144306	1124207
CEL1	7BCEFGHJK	POTS	NONE	FRA	U10M	2126775	1719730	1825507	1621260	1107466	1105491	1126890	1769013	1660944	1514300
CEL1	7BCEFGHJK	POTS	NONE	GBG	U10M					448	237				302
CEL1	7BCEFGHJK	POTS	NONE	NIR	U10M						2530				
CEL1	7BCEFGHJK	POTS	NONE	SCO	U10M		187	1040	454	180	37		791	1834	262
CEL1	7BCEFGHJK	TR1	NONE	ENG	U10M		2034	2246	4562	9425	10605	18178	34476	29832	23944
CEL1	7BCEFGHJK	TR1	NONE	FRA	U10M	4918	3990	6615	2520			8116	100	931	981
CEL1	7BCEFGHJK	TR1	NONE	SCO	U10M										347
CEL1	7BCEFGHJK	TR2	NONE	ENG	U10M	81776	85163	413462	658783	638121	495758	470138	314999	388622	361703
CEL1	7BCEFGHJK	TR2	NONE	FRA	U10M	170118	71616	91906	47909	26772	21741	62223	91493	99771	68740
CEL1	7BCEFGHJK	TR2	NONE	GBG	U10M							672	90		172
CEL1	7BCEFGHJK	TR2	NONE	GBJ	U10M	0								112	
CEL1	7BCEFGHJK	TR2	NONE	NED	U10M									30	
CEL1	7BCEFGHJK	TR2	NONE	NIR	U10M			1050		2388	4382	1038	80		
CEL1	7BCEFGHJK	TR2	NONE	SCO	U10M		1824			300	116	35	112	307	
CEL1	7BCEFGHJK	TR3	NONE	ENG	U10M					201	152				
CEL1	7BCEFGHJK	TR3	NONE	FRA	U10M	13640	13703	8440	1414	721	721	10200	16392	23818	15162

Table 5.6.6.1.1 continued.

ANNEX	REG.AREA.COD	REG.GEAR.COD	SPECON	COUNTRY	VESSEL_LENGTH	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
CEL2	7FG	BEAM	NONE	ENG	U10M	0									
CEL2	7FG	BT2	NONE	ENG	U10M			1009	350	5668	2091				
CEL2	7FG	BT2	NONE	FRA	U10M									206	
CEL2	7FG	DREDGE	NONE	ENG	U10M	4250	500	5417	5962	9761	7581	4139	7247	3750	8702
CEL2	7FG	DREDGE	NONE	FRA	U10M							574			
CEL2	7FG	DREDGE	NONE	NIR	U10M					119		573			
CEL2	7FG	DREDGE	NONE	SCO	U10M									116	124
CEL2	7FG	GN1	NONE	ENG	U10M	25449	15139	93621	183300	217701	178566	188959	186763	202886	180609
CEL2	7FG	GN1	NONE	SCO	U10M				224					1575	224
CEL2	7FG	GT1	NONE	ENG	U10M	0	0		845			65	223	317	
CEL2	7FG	GT1	NONE	FRA	U10M							3059			
CEL2	7FG	LL1	NONE	ENG	U10M	24059	21580	10158	84820	84181	127260	134122	152160	143220	167921
CEL2	7FG	NONE	NONE	SCO	U10M									75	
CEL2	7FG	OTTER	NONE	ENG	U10M	622	1764	913	1728	57	1885		126		37
CEL2	7FG	PEL_SEINE	NONE	ENG	U10M				1300		354		132		
CEL2	7FG	PEL_TRAWL	NONE	ENG	U10M						40				
CEL2	7FG	PEL_TRAWL	NONE	FRA	U10M							596			
CEL2	7FG	POTS	NONE	ENG	U10M	3867	5083	706650	826383	793296	361204	395633	395011	407189	433268
CEL2	7FG	POTS	NONE	FRA	U10M							328			28
CEL2	7FG	POTS	NONE	SCO	U10M				410	180	37		126	1371	192
CEL2	7FG	TR1	NONE	ENG	U10M		1677	2131	4546	2464	6591	4783	12583	11272	9367
CEL2	7FG	TR1	NONE	FRA	U10M							220			
CEL2	7FG	TR2	NONE	ENG	U10M	13397	15912	53406	115790	109414	57108	55202	34583	33061	43190
CEL2	7FG	TR2	NONE	FRA	U10M							592	2395		
CEL2	7FG	TR2	NONE	NIR	U10M			1050		2388	3389	1038	80		
CEL2	7FG	TR2	NONE	SCO	U10M							35		75	
CEL2	7FG	TR3	NONE	FRA	U10M							82		510	

5.6.6.2 Catches (landings and discards) of small boats by area, Member State and fisheries

Table 5.6.6.2.1 lists the cod landings by Member State for both areas, the entire Celtic Sea (Cel 1) and the sub-divisions 7fg only (Cel2). Landings of cod reflect trends by the larger vessels, with landings increasing up to 2012 following the strong 2010 year class and the increase in stock size (ICES, 2013), but reduced significantly in 2013 for most gears.

Table 5.6.6.2.Cod landings (t) for vessels <10m in length by Member State for both areas, the entire Celtic Sea (Cel 1) and the subdivisions 7fg only (Cel2).

annex	reg_area	country	reg_gear	specon	species	2004 L	2005 L	2006 L	2007 L	2008 L	2009 L	2010 L	2011 L	2012 L	2013 L
CEL1	7BCEFGHJK	ENG	BEAM	NONE	COD	0.021									
CEL1	7BCEFGHJK	ENG	BT2	NONE	COD		0.034	0.176	0.11	0.113	0.006				
CEL1	7BCEFGHJK	ENG	DREDGE	NONE	COD			0.002	0.022	0.001	0.01		0.455	0.024	0.014
CEL1	7BCEFGHJK	ENG	GN1	NONE	COD	16.391	10.818	30.372	36.954	19.918	29.287	50.559	87.46	137.254	59.954
CEL1	7BCEFGHJK	ENG	GT1	NONE	COD	0.06	0.065		0.022	0.203	0.345	0.659	0.288	0.234	
CEL1	7BCEFGHJK	ENG	LL1	NONE	COD	0.077	0.133	0.807	0.82	1.939	6.487	10.936	22.966	17.116	5.883
CEL1	7BCEFGHJK	ENG	NONE	NONE	COD	0.005		0.007		0.018					0.008
CEL1	7BCEFGHJK	ENG	OTTER	NONE	COD	5.748	3.683	2.444	0.689	0.012	0.02		0.001		
CEL1	7BCEFGHJK	ENG	PEL_TRAWL	NONE	COD									0.012	
CEL1	7BCEFGHJK	ENG	POTS	NONE	COD	0.002	0.007	0.026	0.019	0.14	0.526	0.485	1.968	2.457	1.055
CEL1	7BCEFGHJK	ENG	TR1	NONE	COD		2.097	0.241	0.125	0.239	0.283	1.796	2.995	4.559	3.386
CEL1	7BCEFGHJK	ENG	TR2	NONE	COD	4.902	15.534	23.587	28.079	16.16	12.76	20.644	15.688	21.446	9.077
CEL1	7BCEFGHJK	FRA	BT2	NONE	COD	0.125						0.02			
CEL1	7BCEFGHJK	FRA	DREDGE	NONE	COD							0.018	0.1	0.048	0.155
CEL1	7BCEFGHJK	FRA	GN1	NONE	COD	1.706	0.417	0.846	0.532	0.444	0.444	10.018	17.673	5.779	0.256
CEL1	7BCEFGHJK	FRA	GT1	NONE	COD	0.096	0.929	0.551	2.354	0.895	0.895	5.288	10.119	20.194	0.85
CEL1	7BCEFGHJK	FRA	LL1	NONE	COD	0.066	0.04	0.046	0.033	0.022	0.022	1.37	14.368	5.843	0.49
CEL1	7BCEFGHJK	FRA	OTTER	NONE	COD	0.091	0.016	0.002	0.001			0.07	0.1		
CEL1	7BCEFGHJK	FRA	PEL_SEINE	NONE	COD								0.008		
CEL1	7BCEFGHJK	FRA	POTS	NONE	COD							0.069	0.537	0.074	
CEL1	7BCEFGHJK	FRA	TR1	NONE	COD	0.139		0.051	0.026			0.033			
CEL1	7BCEFGHJK	FRA	TR2	NONE	COD	0.089	0.348	0.02	0.041	0.015		0.182	0.657	0.073	0.036
CEL1	7BCEFGHJK	FRA	TR3	NONE	COD							0.007	0.038	0.032	
CEL1	7BCEFGHJK	GBG	GN1	NONE	COD							0.003		0.178	
CEL1	7BCEFGHJK	GBG	LL1	NONE	COD									0.394	
CEL1	7BCEFGHJK	GBG	TR2	NONE	COD					0.174		0.002			
CEL1	7BCEFGHJK	IRL	NONE	NONE	COD	17.38	19.19	10.98		1.2	0.42	28.24	34.17	89.27	97.37
CEL1	7BCEFGHJK	NIR	TR2	NONE	COD			0.105		0.415	0.203	0.239	0.022		
CEL1	7BCEFGHJK	SCO	DREDGE	NONE	COD									0.005	
CEL1	7BCEFGHJK	SCO	GN1	NONE	COD								0.007	0.01	
CEL1	7BCEFGHJK	SCO	LL1	NONE	COD							0.004			
CEL1	7BCEFGHJK	SCO	TR2	NONE	COD		0.044			0.001				0.015	

annex	reg_area	country	reg_gear	specon	species	2004 L	2005 L	2006 L	2007 L	2008 L	2009 L	2010 L	2011 L	2012 L	2013 L
CEL2	7FG	ENG	BEAM	NONE	COD	0.015									
CEL2	7FG	ENG	BT2	NONE	COD			0.016	0.029	0.086	0.006				
CEL2	7FG	ENG	DREDGE	NONE	COD				0.001						0.004
CEL2	7FG	ENG	GN1	NONE	COD	1.012	0.963	5.974	5.064	2.129	2.719	8.28	18.295	26.46	11.361
CEL2	7FG	ENG	GT1	NONE	COD				0.005				0.05	0.013	
CEL2	7FG	ENG	LL1	NONE	COD	0.009	0.068	0.496	0.251	0.035	0.047	2.586	9.322	7.436	0.631
CEL2	7FG	ENG	OTTER	NONE	COD	0.485	0.429	1.35	0.671		0.002		0.001		
CEL2	7FG	ENG	POTS	NONE	COD			0.006			0.037	0.166	0.701	1.158	0.075
CEL2	7FG	ENG	TR1	NONE	COD		2.097	0.241	0.125	0.025	0.09	0.4	1.134	1.633	1.074
CEL2	7FG	ENG	TR2	NONE	COD	1.317	13.026	10.7	7.276	2.282	1.528	2.982	2.298	2.95	1.267
CEL2	7FG	FRA	GT1	NONE	COD							0.1			
CEL2	7FG	FRA	POTS	NONE	COD							0.01			
CEL2	7FG	IRL	NONE	NONE	COD	17.03	18.6	9.45		0.66		26.88	33.7	70.31	96.74
CEL2	7FG	NIR	TR2	NONE	COD			0.105		0.415	0.203	0.239	0.022		
CEL2	7FG	SCO	GN1	NONE	COD									0.01	
CEL2	7FG	SCO	TR2	NONE	COD									0.015	

5.6.7 ToR 4 Data quality and any unexpected evolutions of the trends in catches and effort by area, Member State and fisheries

The inclusion of Spanish data in 2012 and 2013 is welcome and provides a more complete picture of landings as reported by Member States. A lack of discard information, including for some major fisheries, mean that interpreting trends in catch and CPUE is challenging; submission of discard information by all countries would enable of more complete evaluation of the Celtic Sea fisheries.

5.6.8 ToR 5 Correlation between partial cod mortality and fisheries

Table 5.6.8.1 Cod in the entire Celtic Sea (7bcefghjk). The left part of the table lists estimated F trajectories from the management plan and the ICES 2014 cod assessment, as well as partial Fs for landings of fisheries using gears defined as those regulated under the cod management plan. The right part of the table lists the respective trends in fishing effort (kW days at sea. A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

Fmsy = 0,4																										
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013			2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
F plan																										
reduction F plan																										
F estimated				0,917	0,927	0,963	0,805	0,809	0,73	0,732	0,495	0,404	0,469	0,551		Effort estimate	55538239	56222641	56322770	51759025	51760380	41025066	39029602	43543022	42707589	43179997	45704469
Reduction F estimated										0,00	-0,32	-0,18	0,16	0,17									-0,05	0,12	-0,02	0,01	0,06
Fpar																EFFORT											
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013		kW days at sea	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
BEL	BT1	NONE	landings						6,00E-05					0								1766					5754
BEL	BT2	NONE	landings	0,01772	0,03729	0,05645	0,01958	0,01547	0,01024	0,00774	0,00577	0,00484	0,01382	0,01392			2914644	4568918	3996701	3246205	3351614	2285026	1932211	2392748	2698681	3206396	3133707
BEL	TR1	NONE	landings											0,00011													1326
BEL	TR2	NONE	landings		0,00069	0,00148	0,00208	0,00244	0,00165	0,00315	0,00215	0,00197	0,00375	0,00366				119327	188914	424630	464699	467476	468989	422826	322422	468384	396905
ENG	BT1	NONE	landings		0,00031													52079									
ENG	BT2	NONE	landings	0,01471	0,02155	0,03131	0,01957	0,01872	0,01323	0,01495	0,01008	0,0055	0,01012	0,01004			6040112	5696823	5684136	5278959	5012272	4324163	3862069	3735555	3882328	3728300	3683506,3
ENG	GN1	NONE	landings	0,01231	0,02228	0,03044	0,027	0,02076	0,01314	0,01832	0,00843	0,00402	0,00818	0,01348			2072275	2209784	1683378	968269	983770	724124	639496	721831	617961	670878	728394,83
ENG	GT1	NONE	landings		0	0,00036	0,00033	0,00038	0,00028	0,00015	0,00011	0,00013	0,00059	0,00094			18276	40888	27240	71011	29897	37830	17331	16157	86642	117234	141792,85
ENG	LL1	NONE	landings	0,00086	1,00E-05	0,00084	0,00063	0,00012	1,00E-05	1,00E-05	2,00E-05	2,00E-05	1,00E-05	6,00E-05			400652	340754	323584	475144	656851	202109	48307	59764	55715	36152	266695,92
ENG	TR1	NONE	landings	0,00583	0,00682	0,0067	0,00691	0,00367	0,00504	0,00372	0,0037	0,00243	0,00516	0,00757			2435406	2261954	1804168	2227366	2304849	1669349	1368822	1541253	2080247	1393333	1885690,3
ENG	TR2	NONE	landings	0,00923	0,01024	0,01531	0,01131	0,01336	0,0111	0,00867	0,00823	0,00231	0,00285	0,0044			2177819	2259084	2182086	2026476	2064267	1676522	1728330	1688245	1349178	1316914	1320622
ENG	TR3	NONE	landings	0		7,00E-05			0	1,00E-05							6269	991	3204	1505	5646	7952	10318	2204	4242	13828	3459,8
FRA	BT2	NONE	landings	0	0,00022	1,00E-05	0,00063	2,00E-05	0	0	8,00E-05	2,00E-05	0				45086	317773	263900	305832	320576	146443	138669	306957	205105	131553	61469,5
FRA	GN1	NONE	landings	0,00161	0,00214	0,00155	0,00117	0,00067	0,00094	0,00113	0,00092	0,00182	0,00209	0,00108			1783662	2085242	2144357	1947806	2175901	2240099	2239709	2233974	2042906	2287411	2172290,3
FRA	GT1	NONE	landings	0,00194	0,00233	0,00353	0,00125	0,00142	0,00196	0,00236	0,00327	0,00199	0,00322	0,00299			762235	971823	1201844	1371988	1529613	1043635	1043484	992674	999986	936777	863189
FRA	LL1	NONE	landings	0,00125	0,00118	2,00E-04	0,00359	0,00034	0,00034	4,00E-04	0,00041	0,00046	0,00031	0,00063			235082	338303	405334	710618	724605	475817	475817	553903	497021	755496	1442912,7
FRA	TR1	NONE	landings	0,34222	0,28267	0,1961	0,14353	0,13251	0,12278	0,14756	0,15836	0,13726	0,22585	0,28231			7734607	7788841	7366673	7881085	7420257	6314288	6290496	9431237	10053439	9930243	10377344
FRA	TR2	NONE	landings	0,10605	0,07284	0,11123	0,08095	0,07705	0,06624	0,07968	0,04989	0,02134	0,02191	0,0324			10516376	10920284	11540724	10898037	10785794	7338510	7293644	6895363	6068354	6018646	6989674,3
FRA	TR3	NONE	landings				0				0,00052	0,00026					5832	6986	14923	21471	4483	9527	9527	55029	54466	22264	6927,67
GBG	TR2	NONE	landings				1,00E-05	0	0		0	0	1,00E-05	0					730	6378	11065	5203	3090	7854	2298	11868	1107,68
GBJ	BT2	NONE	landings	0,00093	0,00267	0,00139											284450	365302	202229								
GBJ	TR2	NONE	landings	0			0	2,00E-05	1,00E-05	1,00E-05	1,00E-05	1,00E-05	0	0			3557		6745	19360	30580	25740	31020	37620	41195	12760	33660
IRL	BT2	NONE	landings	0,00977	0,02077	0,05261	0,03518	0,01978	0,01726	0,01852	0,01547	0,00484	0,00842	0,01487			3748872	2331454	2969538	2079409	1767496	1020052	916246	948287	879763	1090097	1127501
IRL	GN1	NONE	landings	0,00608	0,02009	0,03118	0,01799	0,0157	0,01886	0,0363	0,02461	0,00933	0,01331	0,01025			1062126	886948	678791	531205	561733	532849	550092	523002	451265	506639	481472
IRL	GT1	NONE	landings	1,00E-05			1,00E-05	1,00E-05	1,00E-05	4,00E-05	0,00029	4,00E-05	0,00012	0,00078			802	172	16260	20223	25383	44065	37179	66405	50980	78359	37906
IRL	LL1	NONE	landings			9,00E-05	3,00E-05	1,00E-05	0,00015	2,00E-05			2,00E-05	2,00E-05			91311	3600	72796	1265	55984	23606	29165	34204	17637	49194	14608
IRL	TR1	NONE	landings	0,01372	0,03012	0,05184	0,044	0,03032	0,03862	0,08105	0,07133	0,02878	0,04514	0,07189			5847912	5080624	4811084	3883296	4031609	3868538	4179131	4496000	4410607	4341606	4898660
IRL	TR2	NONE	landings	0,03533	0,05952	0,1164	0,08643	0,0504	0,05128	0,06863	0,05905	0,01629	0,02682	0,03292			5516623	5481022	6549003	5781300	6056725	4609737	3484871	4105661	3760111	4276270	4338923
IRL	TR3	NONE	landings	1,00E-05	4,00E-05		3,00E-05		0		0	2,00E-05	1,00E-05	0			8499	8964	340	10012	3976	11941	17634	9604	21664	20151	2478
NED	BT2	NONE	landings	0													22000							1467		2572	
NED	TR1	NONE	landings									6,00E-05	0											6044	221	4442	1500
NED	TR2	NONE	landings	0,00029	0	0,00031	0,00085	0,00034	0	0,00089	0,00046	0,00039	0,00031	0,00018			36589	64393	108566	162551	113851	90839	216240	252472	259559	150099	130151
NIR	TR1	NONE	landings	0,00031			4,00E-05			1,00E-05	7,00E-05	8,00E-04	0,00116	0,00042			7641		716	5176		1141	1805	16616	24770	42944	58251,53
NIR	TR2	NONE	landings		0,00076	0,0014	0,00104	0,00032	0,00315	0,00388	0,00205	6,00E-05	4,00E-04	0,00102				53672	72432	42938	20658	128847	153397	146457	6852	31350	62129,06
SCO	BT2	NONE	landings					2,00E-04													3666		1396				
SCO	GN1	NONE	landings			0,00038	6,00E-05			0							467260	643185	498672	192066	193116	355719	437451	387259	463248	439892	435614,77
SCO	TR1	NONE	landings	0,00115	0,00276		0,00074	0,00028	0,00111	0,00105	0,00138	0,0016	0,00283	0,00202			802771	879428	1084677	779453	681392	835556	906397	997738	748948	765697	287961,97
SCO	TR2	NONE	landings	2,00E-04	0,00062		0,00041	0,00022	0,00048	0,00045	0,00021	0,00045	0,00016	0,00089			489493	444023	419025	387991	368052	506597	497269	456612	549778	322248	310884,15
Sum				0,58153	0,59792	0,71118	0,50535	0,40453	0,37794	0,4987	0,42687	0,24704	0,39657	0,50885			55538239	56222641	56322770	51759025	51760380	41025066	39029602	43543022	42707589	43179997	45704469
(Sum of Fpars)/estimated F				0,6342	0,645	0,7385	0,6278	0,5	0,5177	0,6813	0,8624	0,6115	0,8456	0,9235													

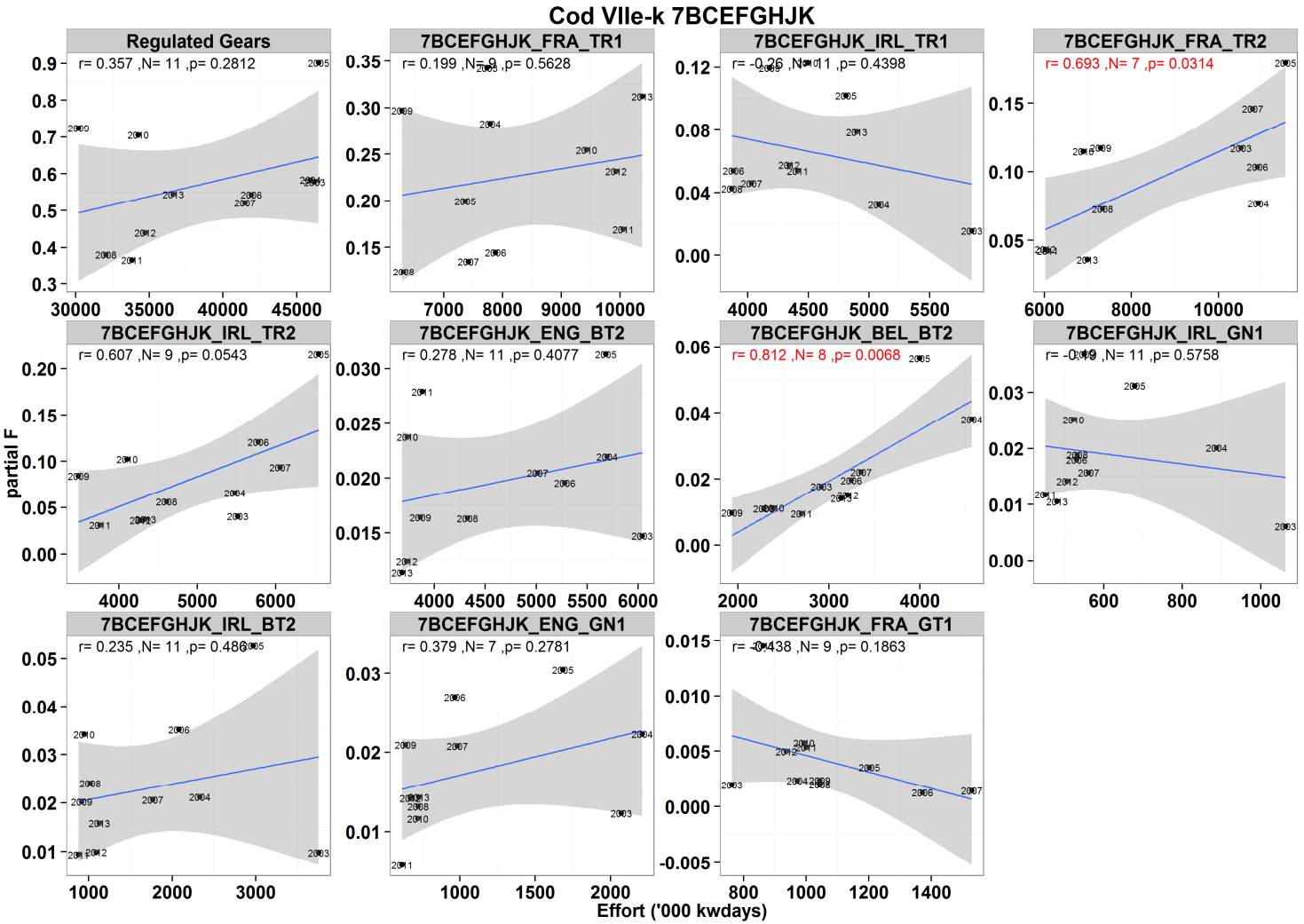


Fig. 5.6.8.1. Cod partial fishing mortality (based on partitioning the F from ICES assessment (ICES, 2014)) over effort ('000 kWd) in the entire Celtic Sea 7bcefghjk (Cel 1) of major fisheries, 2003-2013. The years represent data points, the line a linear fit through the points and the grey the confidence bounds on the linear fit (+-2SE, 95%).

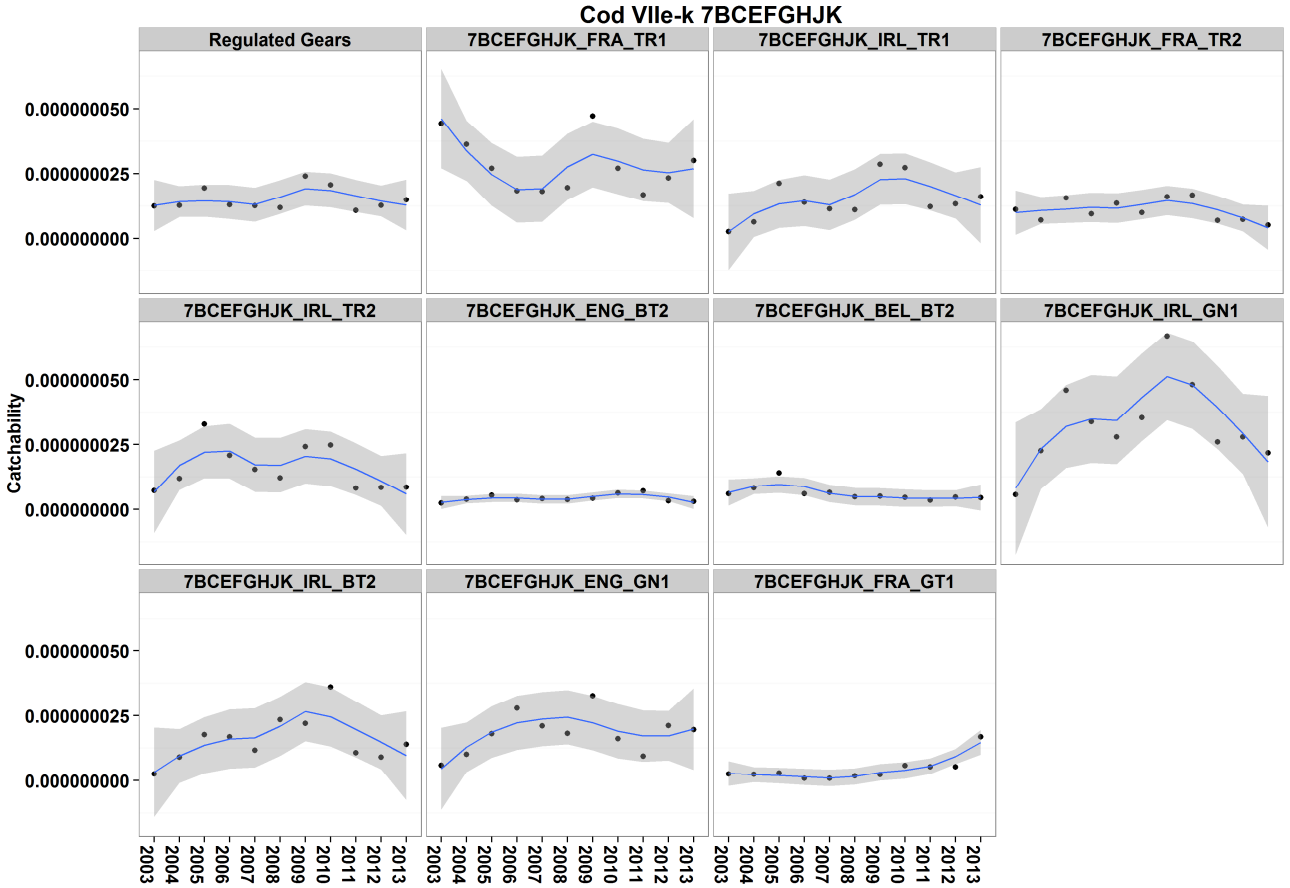


Fig. 5.6.8.2. Time series of cod catchability coefficients (partial F/ KW days effort) for the major fisheries in the entire Celtic Sea 7bcefghjk (Cel 1). 2003-2013. Circles represent data points, the line a smoother fitting through the data points to identify trends, the grey represents confidence bounds round the smoother (+-2SE, 95%).

Table 5.6.8.2 Cod in the Celtic Sea (7fg). The left part of the table lists estimated F trajectories from the management plan and the ICES 2013 cod assessment, as well as partial Fs for landings of fisheries using gears defined as those regulated under the cod management plan. The right part of the table lists the respective trends in fishing effort (kW days at sea). A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

Fmsy = 0,4																										
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013			2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
F plan																										
reduction F plan																										
F estimated				0,917	0,927	0,963	0,805	0,809	0,73	0,732	0,495	0,404	0,469	0,551		Effort estimated	15045231	15381614	15796036	13389703	13102326	11118500	10726612	12226451	11008442	13177254	13822618,14
Reduction F estimated										0,00	-0,32	-0,18	0,16	0,17									-0,04	0,14	-0,10	0,20	0,05
Fpar																EFFORT											
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013		kW days at sea	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
BEL	BT1	NONE	landings											0													4795
BEL	BT2	NONE	landings	0,01718	0,0358	0,05404	0,01834	0,01445	0,00934	0,00618	0,00493	0,00447	0,01338	0,01359			2419519	3744619	3121706	2534199	2448583	1651116	1570823	1987520	2163164	2636349	2698782
BEL	TR1	NONE	landings											0,00011													1105
BEL	TR2	NONE	landings		0,00069	0,00143	0,00205	0,00242	0,00165	0,00291	0,00206	0,00166	0,00331	0,00351				110564	168754	400049	443057	434936	449108	376867	276627	356164	324453
ENG	BT1	NONE	landings		6,00E-05													8787									
ENG	BT2	NONE	landings	0,0063	0,00887	0,01021	0,00587	0,00556	0,0028	0,00199	0,00187	9,00E-04	0,00305	0,00264			1050450	1012837	785332	645496	570358	411556	416037	403682	278222	489105	539323,35
ENG	GN1	NONE	landings	0,00611	0,01441	0,02221	0,02109	0,01494	0,00949	0,011	0,00458	0,00187	0,00382	0,00735			427137	513629	440032	405494	377381	309350	260006	285725	320757	316814	309660,16
ENG	GT1	NONE	landings		0	7,00E-05	0,00026	0,00033	0,00017	0,00014	5,00E-05	3,00E-05	0,00044	0,00042			1570	23919	9277	26791	18299	16459	11269	7110	42487	82680	78125,75
ENG	LL1	NONE	landings	0,00015		0,00079	4,00E-04	2,00E-05		0	0	1,00E-05	0				28062	33074	44504	32769	14101	6377	4888	4613	4628	610	3695,08
ENG	TR1	NONE	landings	0,00119	0,00371	0,00164	0,00116	0,00061	0,00045	0,00056	0,00045	0,00015	0,00143	0,00083			111759	122527	80092	86398	74498	101146	115014	162848	138708	220022	217900,04
ENG	TR2	NONE	landings	0,00182	0,00211	0,0041	0,00379	0,00256	0,00186	0,00106	0,0015	0,00053	0,00075	0,00073			277253	234967	251717	308751	232452	259463	224727	280872	205009	196845	130369,52
ENG	TR3	NONE	landings			3,00E-05												373	1119						1890		
FRA	BT2	NONE	landings				0,00044				0	0							2200	15965				2151	4131	176	420
FRA	GN1	NONE	landings	0,00025	0,00045	4,00E-05		4,00E-05	1,00E-05	1,00E-05	4,00E-05	5,00E-05	0,00014	9,00E-05			29862	37833	18804		5908	441	441	4199	6296	5836	9736
FRA	GT1	NONE	landings	8,00E-05	1,00E-05	0,00017	9,00E-05	0,00012	0,00011	0,00014	9,00E-05	0,00015	5,00E-05	0,00029			8456	2259	14256	27751	21032	19104	19104	19151	46708	14597	42634
FRA	LL1	NONE	landings			1,00E-05								0,00011					4745		552	883	883			173	8938
FRA	TR1	NONE	landings	0,28904	0,23906	0,16353	0,11131	0,10156	0,08178	0,0983	0,10288	0,06134	0,13755	0,20871			3460445	3326622	3113639	2740592	2475013	2303217	2295080	3283327	2632751	2956038	3368694,85
FRA	TR2	NONE	landings	0,028	0,02257	0,02664	0,01	0,00997	0,0037	0,00445	0,00304	0,00046	0,00111	0,00015			711296	593609	731407	287766	355358	230956	230956	73415	39461	35002	9302,5
FRA	TR3	NONE	landings									4,00E-05												212	2621	636	
GBJ	BT2	NONE	landings	0,00059	0,00153	4,00E-04											151639	145409	46378								
IRL	BT2	NONE	landings	0,00772	0,01666	0,04467	0,03265	0,01762	0,01629	0,01747	0,01496	0,00472	0,00841	0,01475			2877794	1784027	2398012	1779651	1544553	960802	840028	910631	863511	1080147	1109423
IRL	GN1	NONE	landings	0,00456	0,0181	0,02905	0,01521	0,01432	0,01704	0,03406	0,02237	0,0081	0,0112	0,00885			326700	420394	315963	184702	232984	301994	245422	236629	193304	232667	214696
IRL	GT1	NONE	landings	1,00E-05				1,00E-05	1,00E-05		0,00022	3,00E-05	9,00E-05	0,00063			802				9643	12369	8195	22274	16468	36040	20289
IRL	LL1	NONE	landings										2,00E-05						2167		3583	4986	4137	4448	2935	2291	374
IRL	TR1	NONE	landings	0,00617	0,01585	0,03192	0,032	0,02405	0,03214	0,06792	0,05471	0,02159	0,03655	0,05563			686132	832656	857361	1052210	1393754	1649186	1978763	1874554	2240217	2393209	2716171
IRL	TR2	NONE	landings	0,02434	0,04733	0,10429	0,08162	0,04564	0,04631	0,06531	0,0557	0,01484	0,02538	0,03046			2453633	2360432	3309991	2799841	2856080	2302531	1853012	2032989	1432374	1954165	1799047
IRL	TR3	NONE	landings				3,00E-05		0					0						720		324	1500		1498		75
NED	TR2	NONE	landings											0													500
NIR	TR1	NONE	landings	0,00031			4,00E-05			1,00E-05	7,00E-05	0,00077	0,00116	0,00036			7641		716	5176		1141	1805	16028	23389	42944	50494,03
NIR	TR2	NONE	landings		0,00076	0,0014	0,00104	0,00032	0,00315	0,00386	0,00202	6,00E-05	4,00E-04	0,00102				52370	72432	42938	20658	124635	152911	145881	6852	31350	62129,06
SCO	GN1	NONE	landings			0,00038											689	721	1337						2025		3277,17
SCO	TR1	NONE	landings	0,00022	0,00012		3,00E-05		1,00E-05	2,00E-05	0,00062	0,00022	0,00087	0,0011			9622	7701		9616	4479	12835	13077	87699	44476	83618	57382,27
SCO	TR2	NONE	landings	0,00019	6,00E-04		1,00E-05		1,00E-05	0,00023	5,00E-05	8,00E-05	6,00E-05	0,00049			4770	12285	4095	2828		2693	29426	3626	17933	9776	40826,36
Sum				0,39423	0,42869	0,49702	0,33743	0,25454	0,22632	0,31562	0,27221	0,12207	0,24917	0,35182			15045231	15381614	15796036	13389703	13102326	11118500	10726612	12226451	11008442	13177254	13822618,14
(Sum of Fpars)/estimated F				0,4299	0,4624	0,5161	0,4192	0,3146	0,31	0,4312	0,5499	0,3022	0,5313	0,6385													

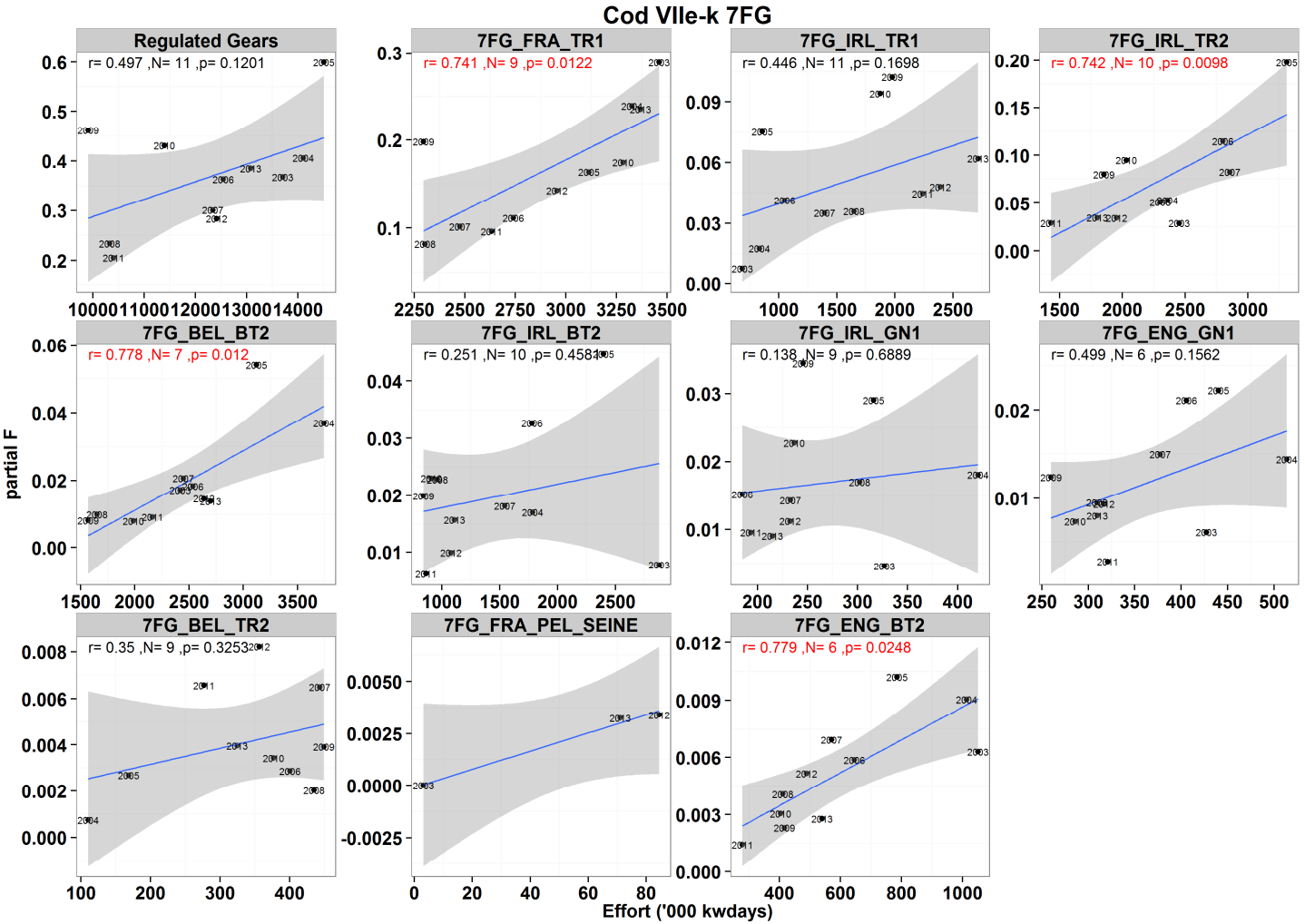


Fig. 5.6.8.3. Cod partial fishing mortality (based on partitioning the F from ICES assessment (ICES, 2014)) over effort ('000 kWd) in the smaller Celtic Sea 7fg (Cel 2) of major fisheries, 2003-2013. The years represent data points, the line a linear fit through the points and the grey the confidence bounds on the linear fit (+-2SE, 95%).

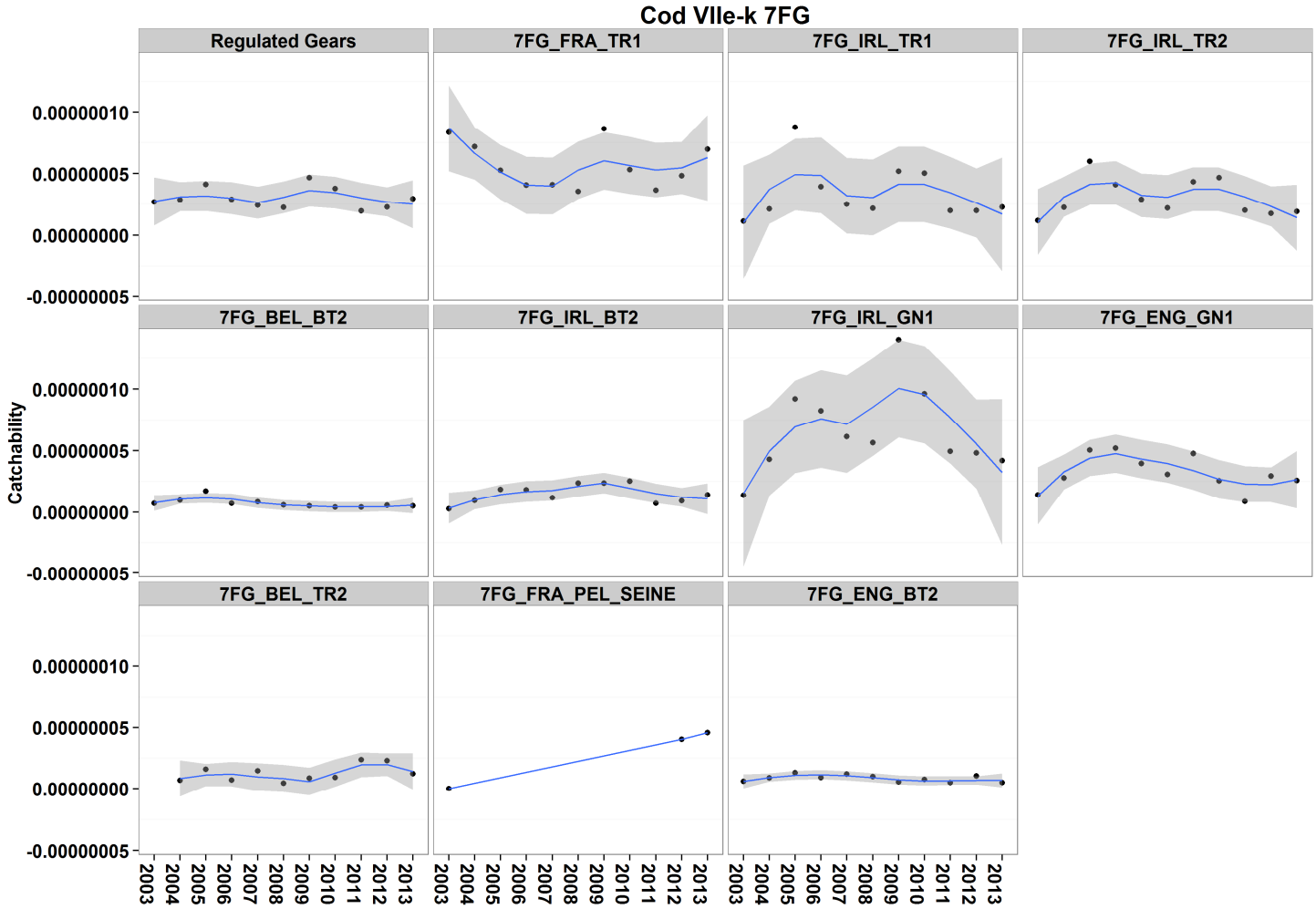


Fig. 5.6.8.4. Time series of cod catchability coefficients (partial F/ KW days effort) for the major fisheries in the smaller Celtic Sea 7fg (Cel 2). 2003-2013. Circles represent data points, the line a smoother fitting through the data points to identify trends, the grey represents confidence bounds round the smoother (+-2SE, 95%).

5.6.9 Spatio-temporal patterns in effective effort by fisheries

The following maps display the spatio-temporal patterns in effective fishing effort (fished hours) by major gear groups for the two potential management areas Cel 1 (7bcefghjk) and Cel 2 (7fg), respectively.

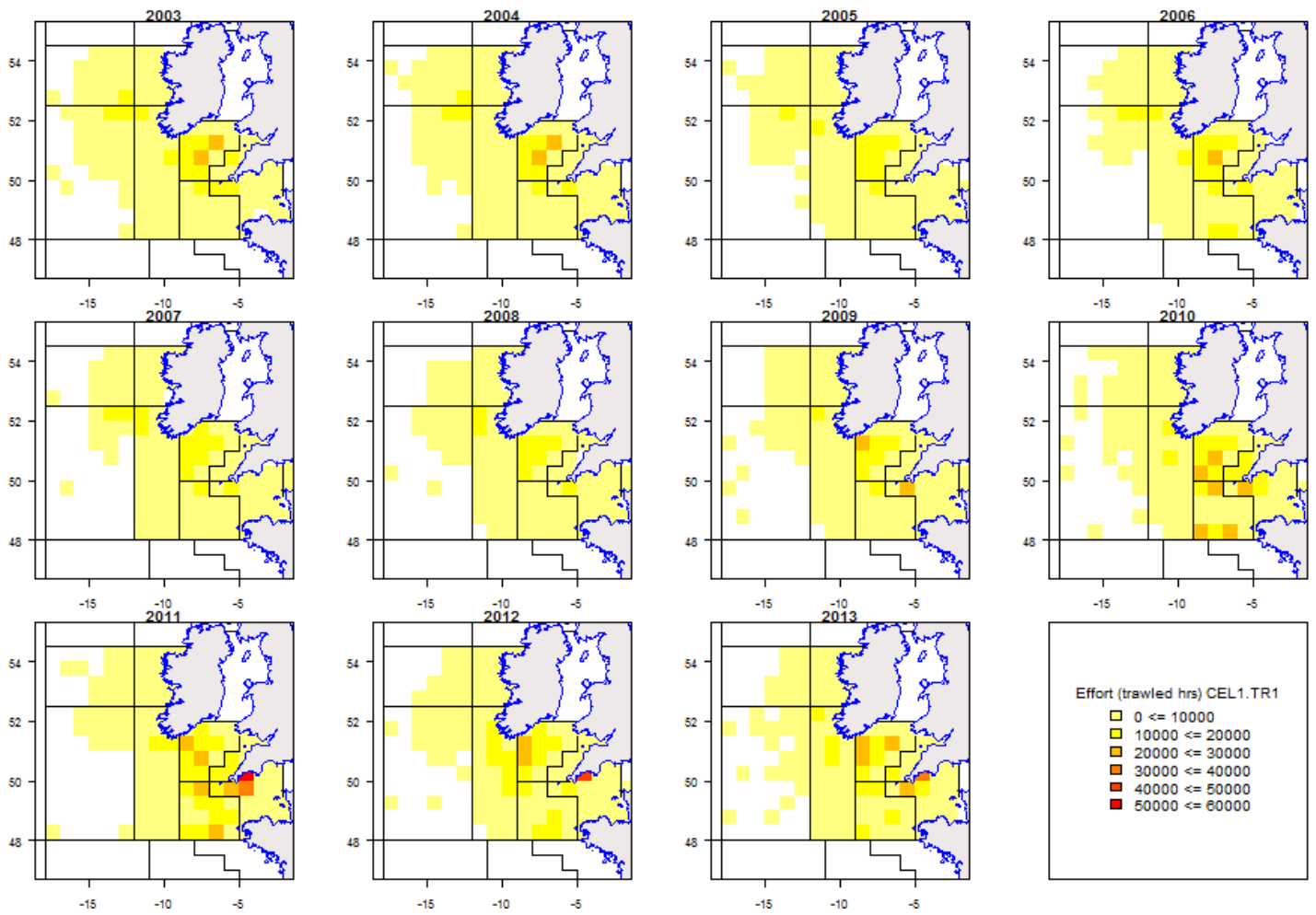


Figure 5.6.9.1.1 Cel1: Effective effort distribution of TR1 gears 2003-2013.

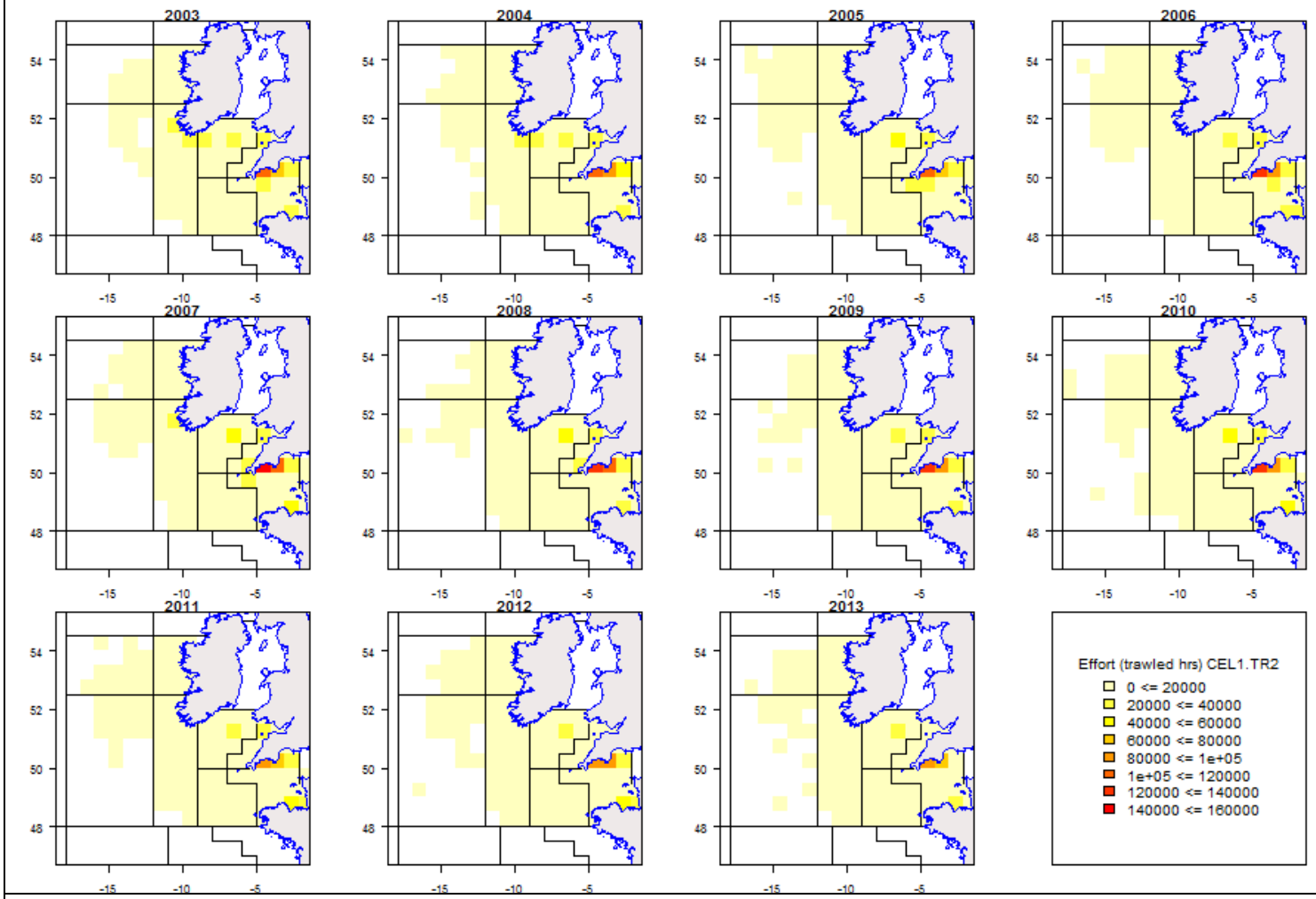


Figure 5.6.9.1.2 Cel1: Effective effort distribution of TR2 gears 2003-2013

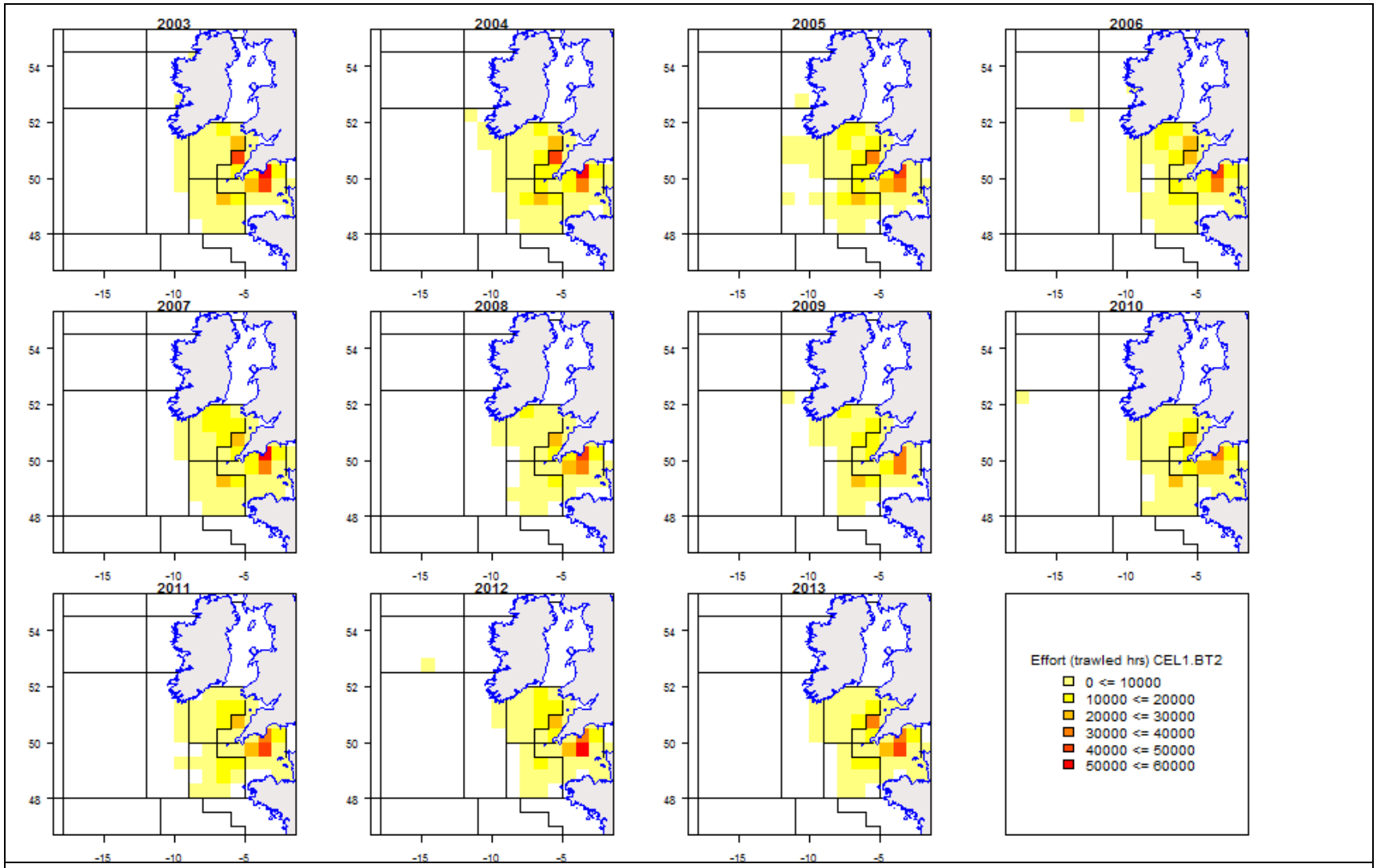


Figure 5.6.9.1.3 Cel1: Effective effort distribution of BT2 gears 2003-2013

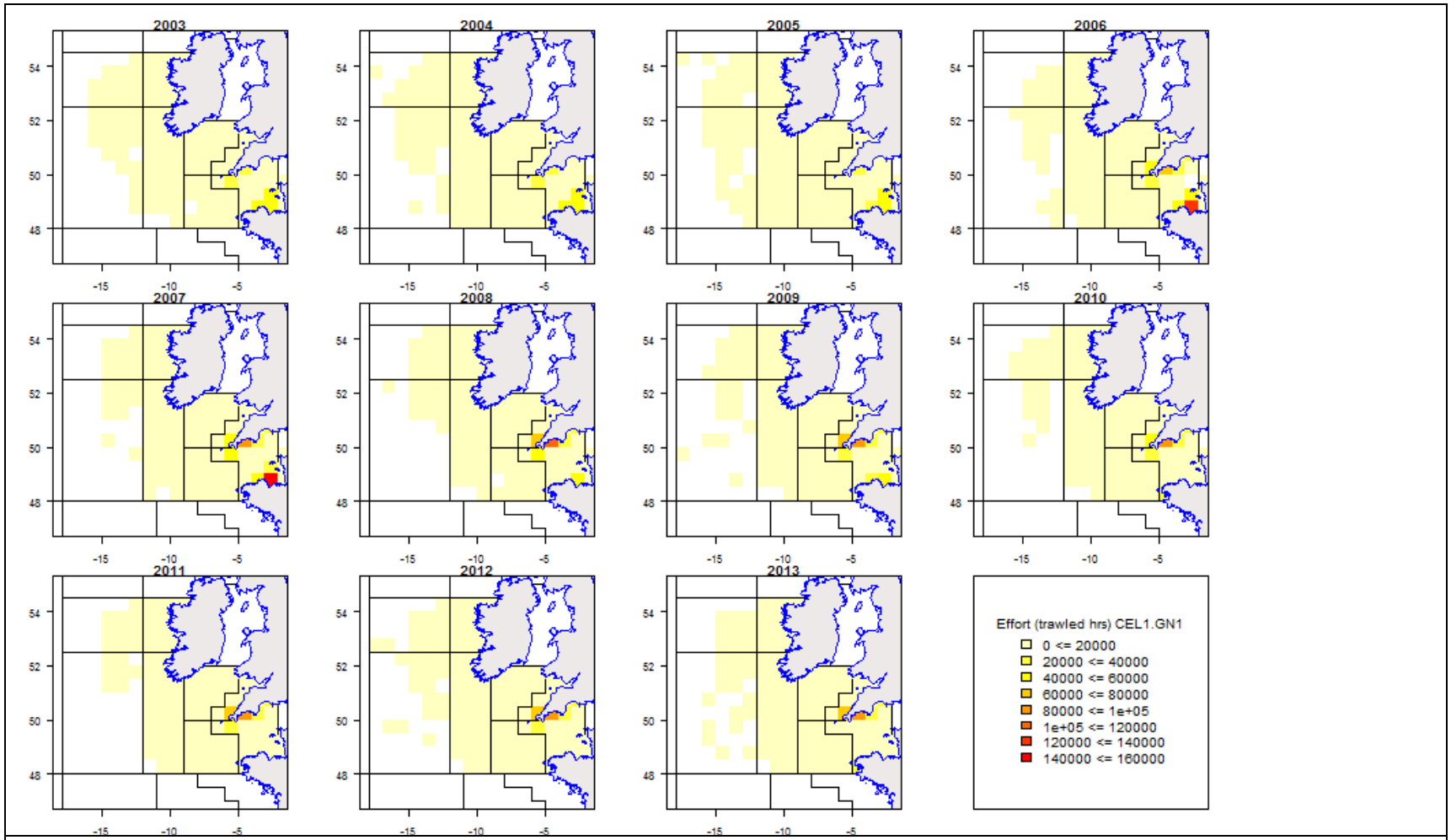


Figure 5.6.9.1.4 Cel1: Effective effort distribution of GN1 gears 2003-2013

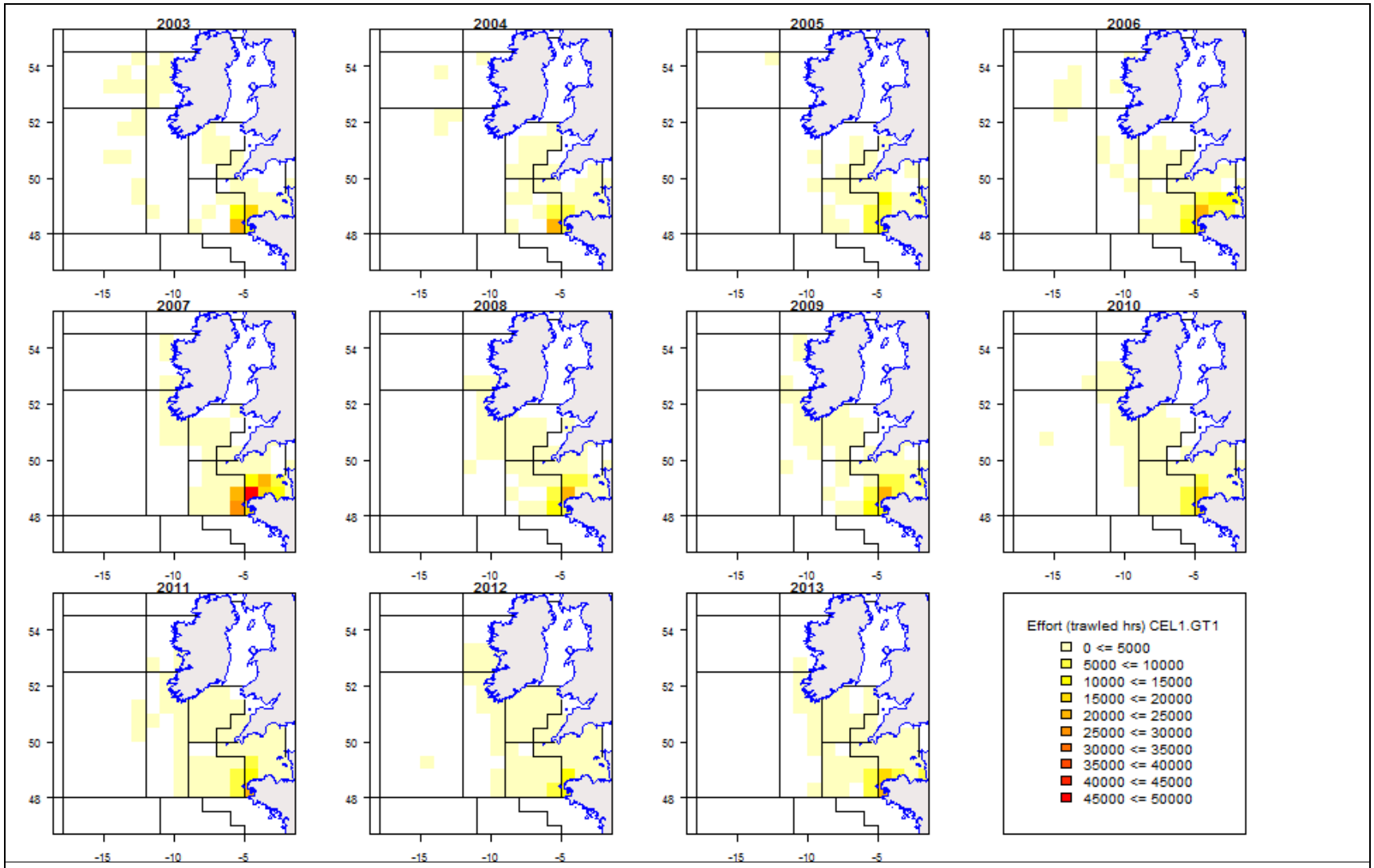


Figure 5.6.9.1.5 Cel1: Effective effort distribution of GT1 gears 2003-2013

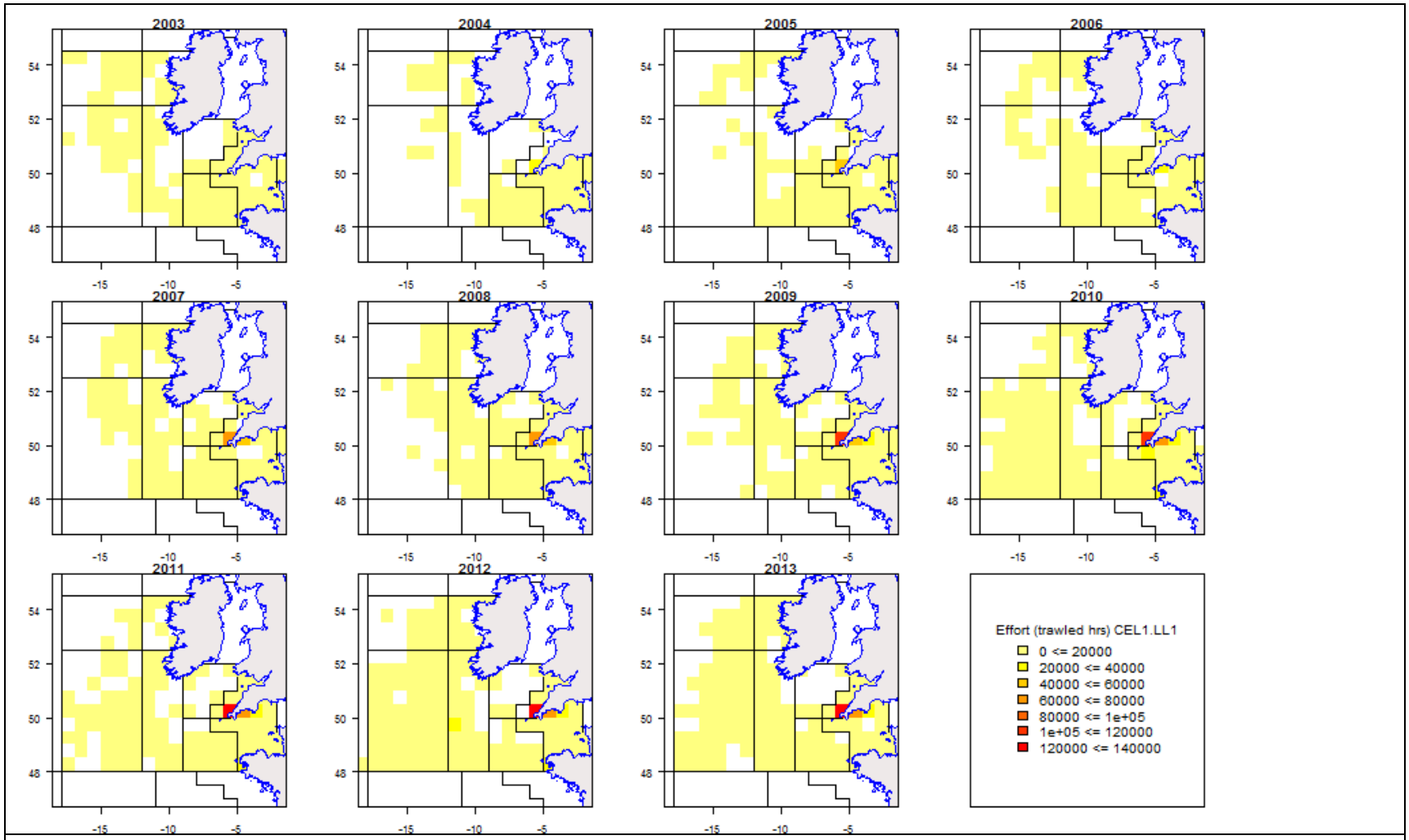


Figure 5.6.9.1.6 Cel1: Effective effort distribution of LL1 gears 2003-2013

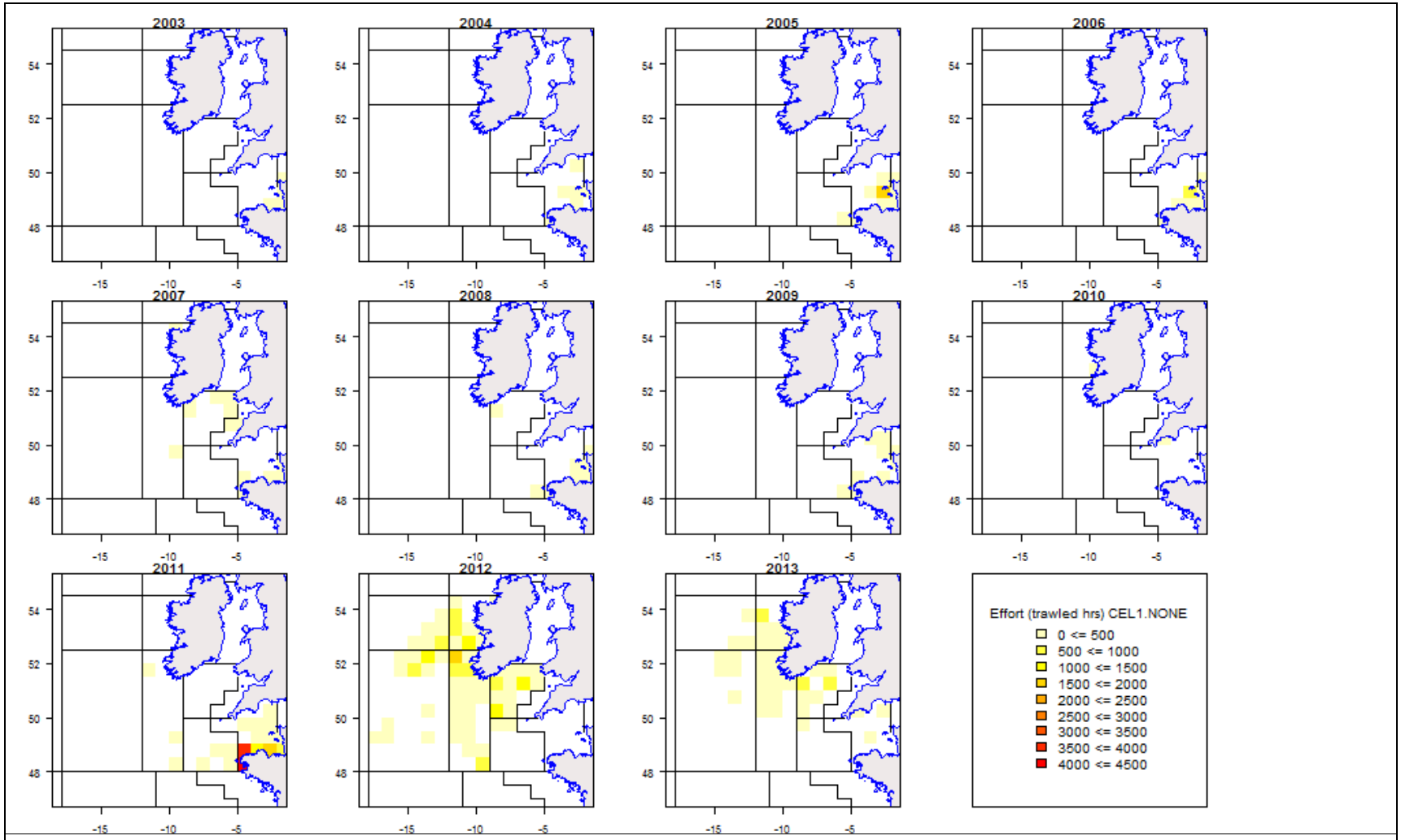


Figure 5.6.9.1.7 Cel1: Effective effort distribution of none gears 2003-2013

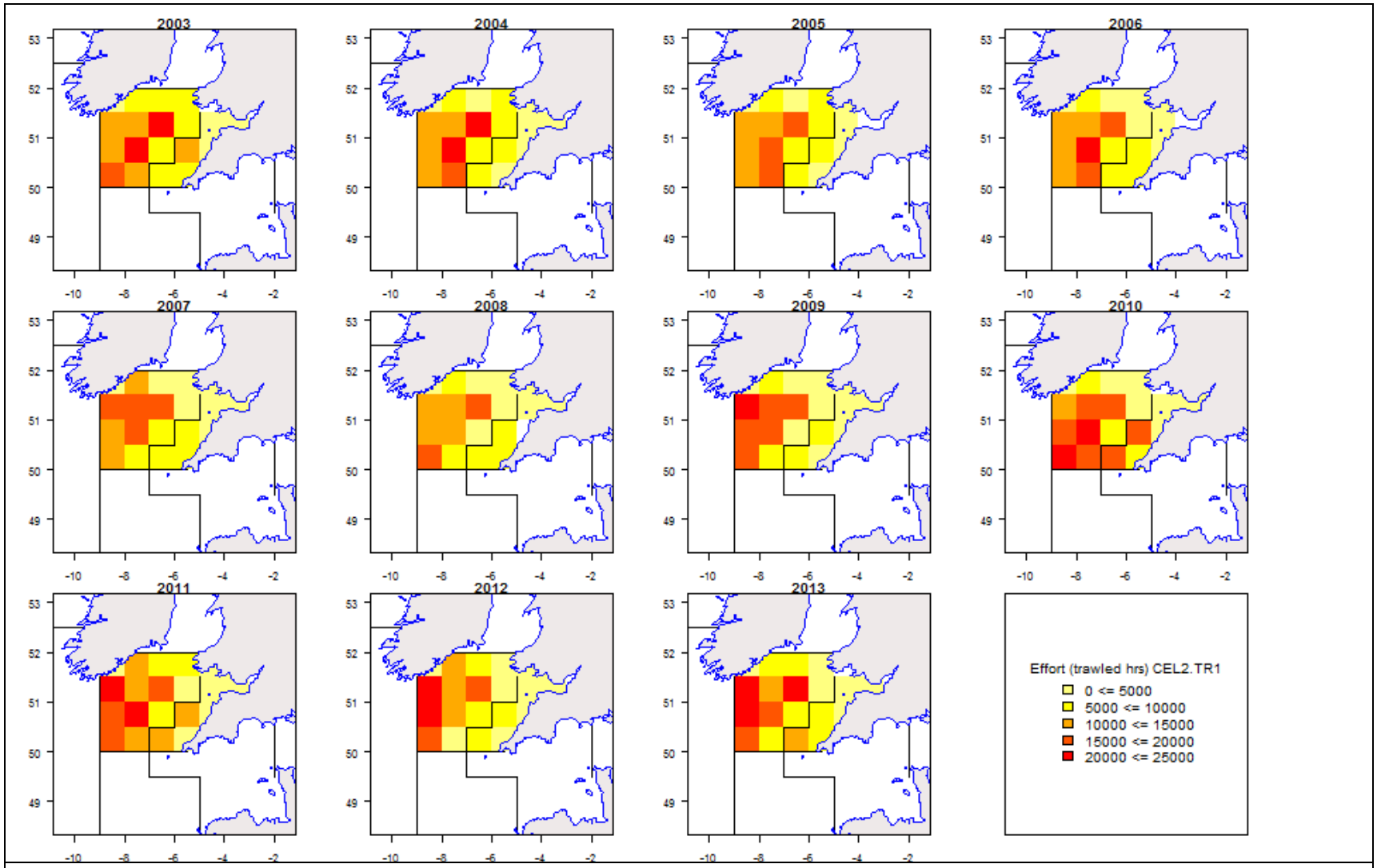


Figure 5.6.9.2.1 Cel2: Effective effort distribution of TR1 gears 2003-2013

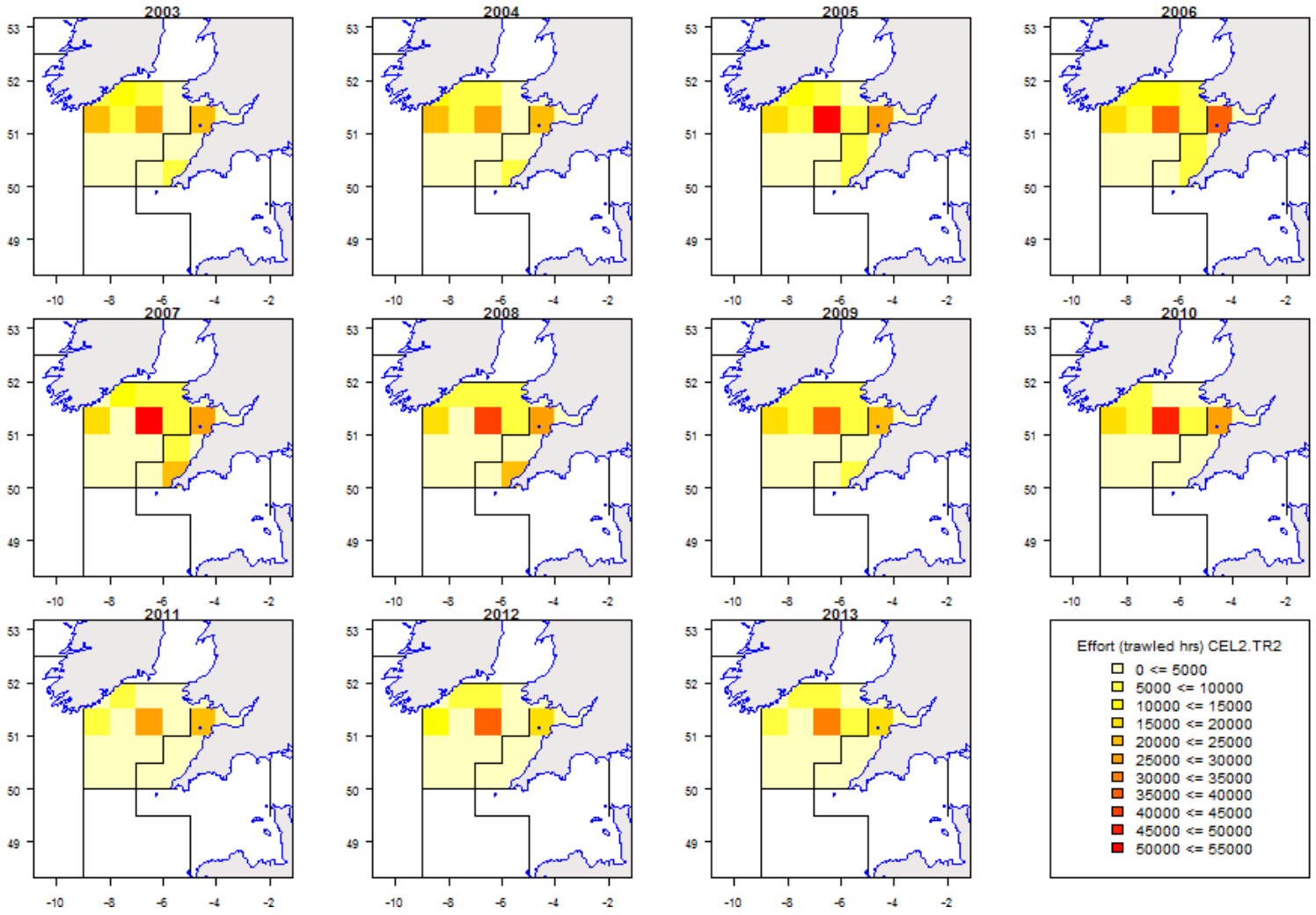


Figure 5.6.9.2.2 Cel2: Effective effort distribution of TR2 gears 2003-2013

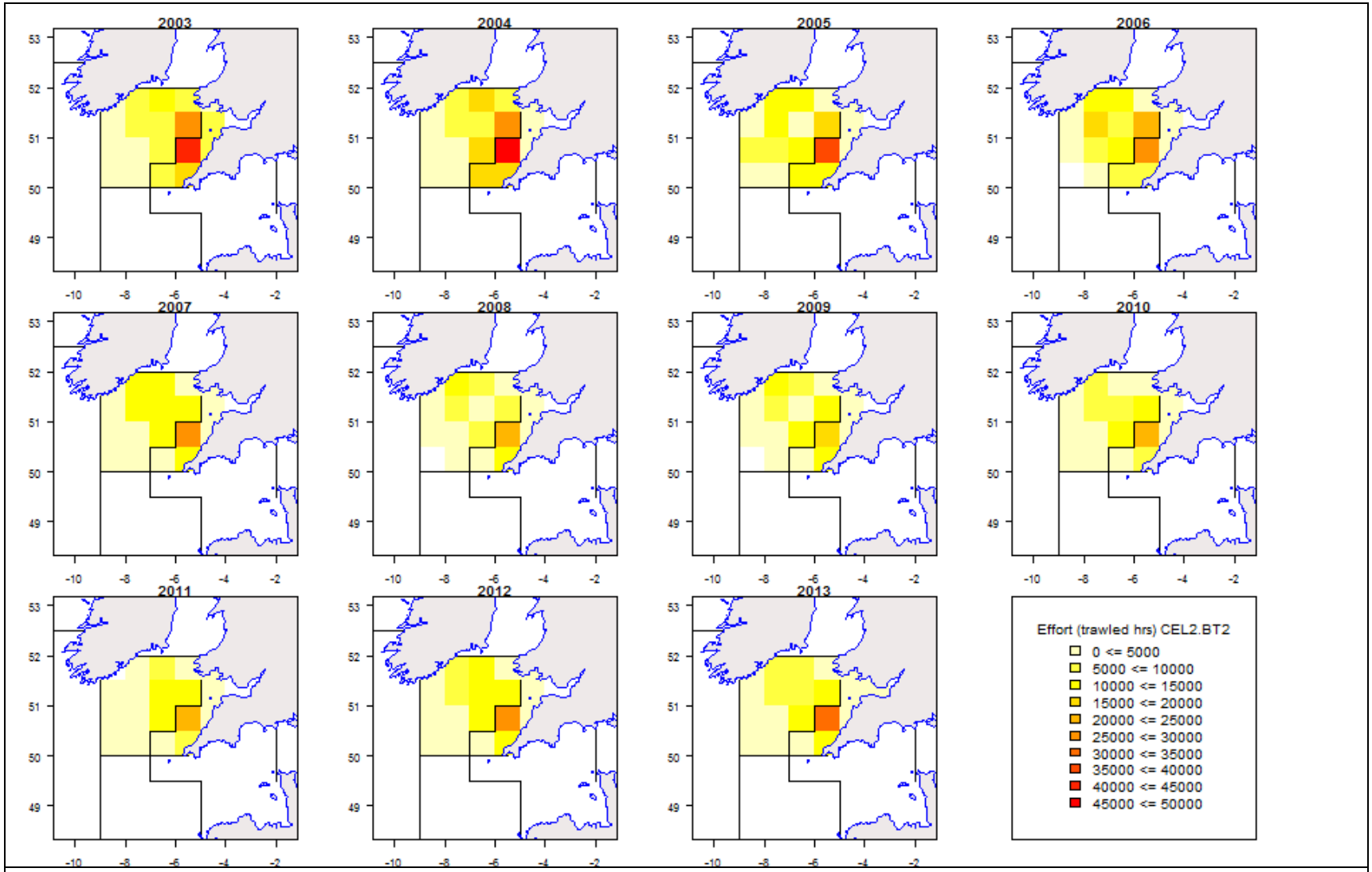


Figure 5.6.9.2.3 Cel2: Effective effort distribution of BT2 gears 2003-2013

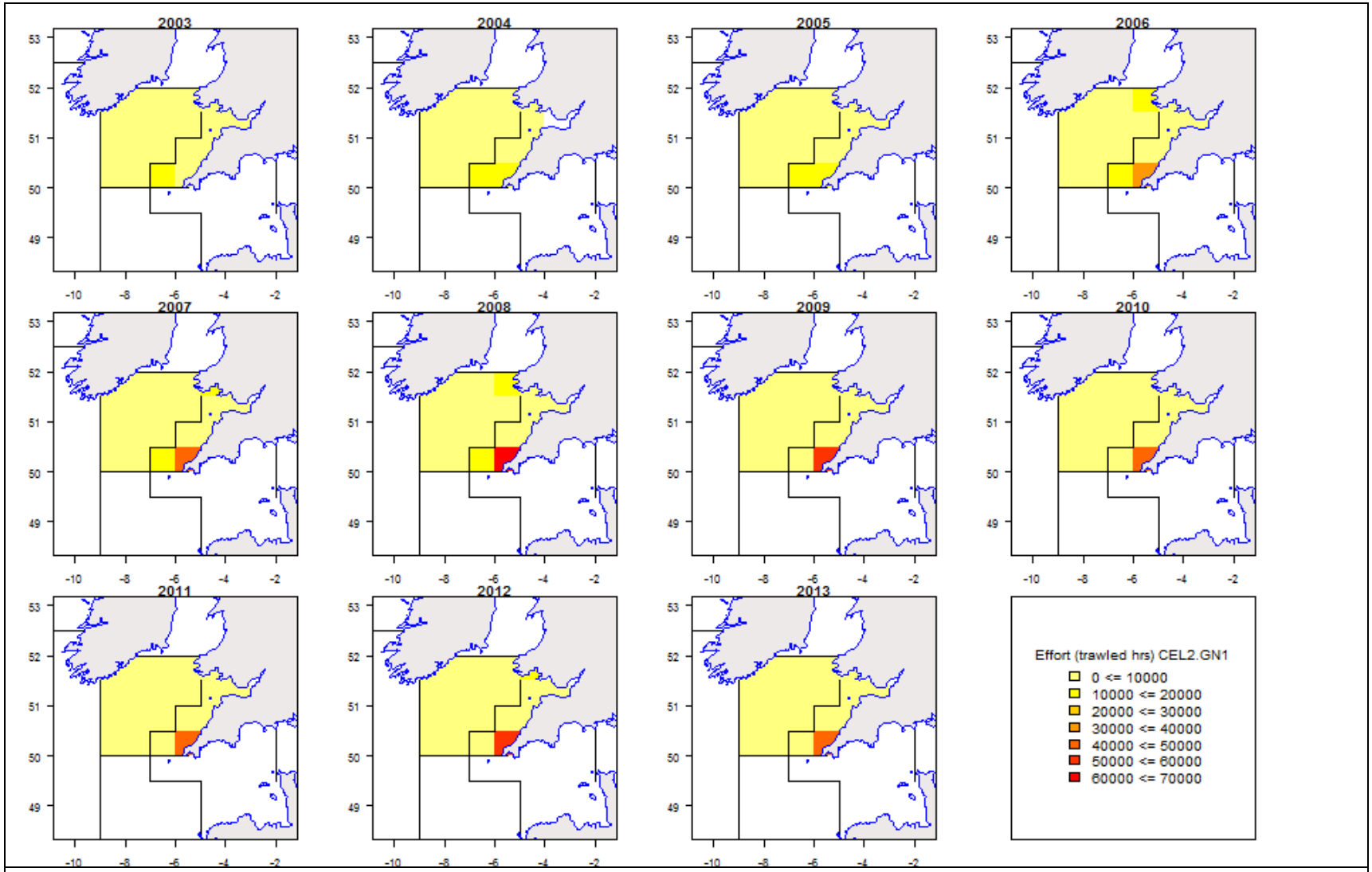


Figure 5.6.9.2.4 Cel2: Effective effort distribution of GN1 gears 2003-2013

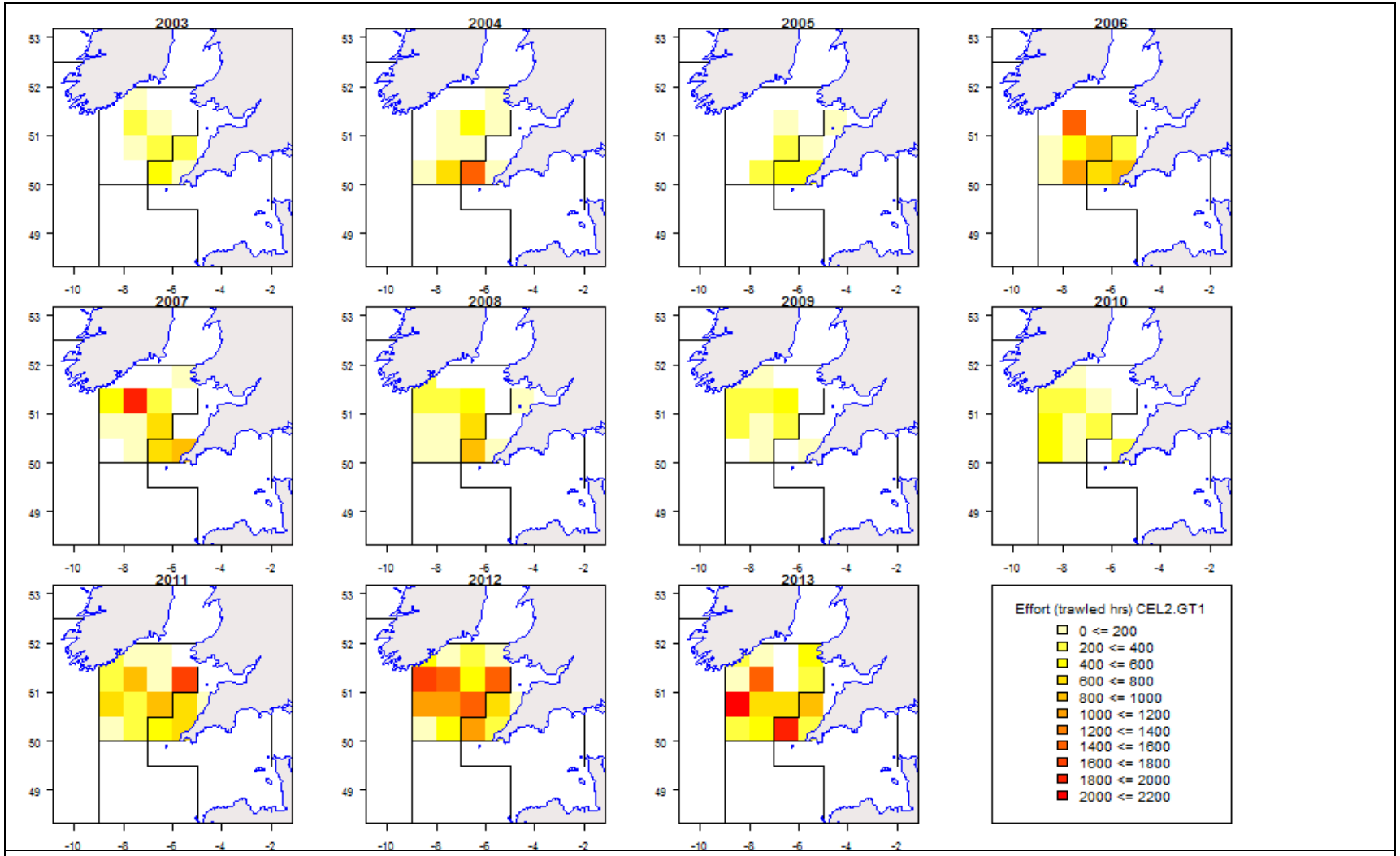


Figure 5.6.9.2.5 Cel2: Effective effort distribution of GT1 gears 2003-2013

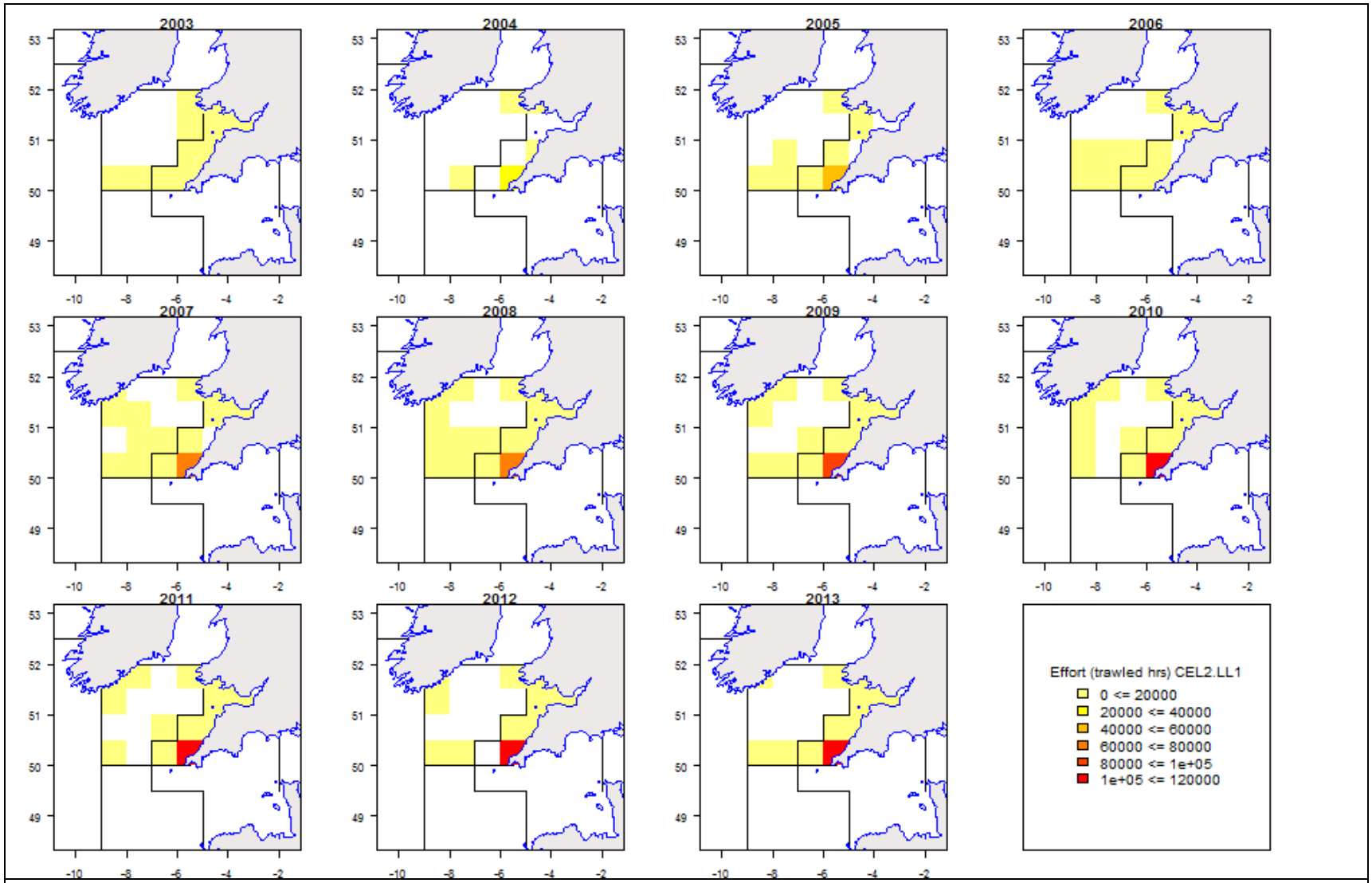


Figure 5.6.9.2.6 Cel2: Effective effort distribution of LL1 gears 2003-2013

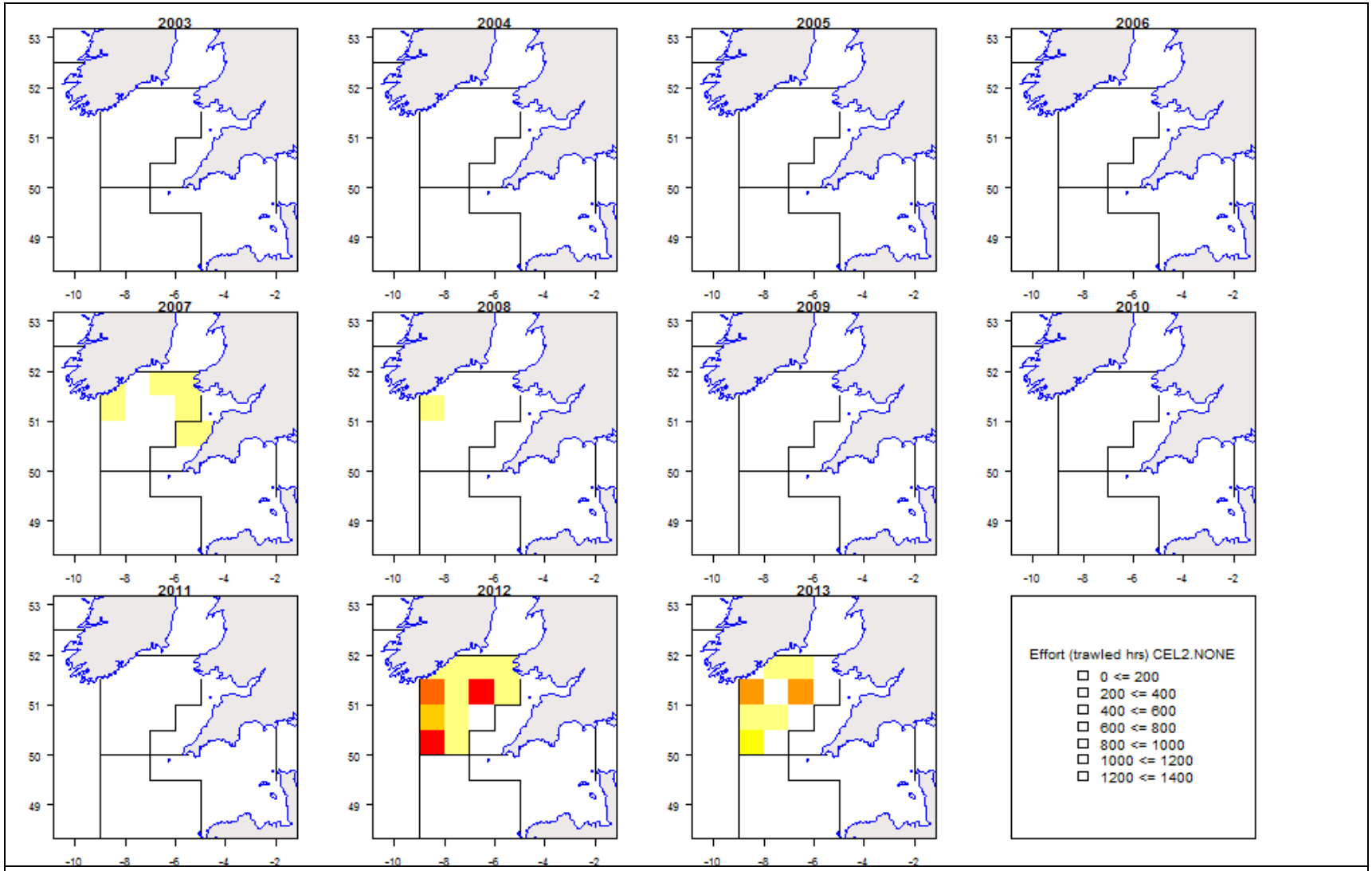


Figure 5.6.9.2.7 Cel2: Effective effort distribution of non-regulated gears 2003-2013.

5.7 Southern hake and *Nephrops* effort regime evaluation in the context of Annex IIB to Council Regulation (EU) No 43/2012

STECF-EWG 14-13 considers that Annex IIB of CR 39/2013 represents a fleet specific effort management regime which supports the Southern hake and *Nephrops* recovery plan (CR 2166/2005).

Annex IIB excludes the Gulf of Cádiz although this area is included in the recovery plan (CR 2166/2005) and is part of the area of Southern stock of hake (8c and 9a) and Iberian *Nephrops* populations (33% and 11% of *Nephrops* landings in 2012 and 2013, respectively [ICES, 2014]). The cause of this exclusion is related to the fact that when the recovery plan was established in 2005 the Spanish administration had already established a fishing plan for the trawl fleet of the Gulf of Cádiz that has been followed by consecutive similar plans since then. The last Fishing Plan (AAA/627/2013) is based on a fishing effort reduction (days & hours) and established a 50 days closed season in autumn.

CR 39/2013 defines "Gulf of Cádiz" as the area eastwards from the longitude 7º 23' 48'' W, therefore "excluding Gulf of Cádiz" means in practice to exclude from area 9a the rectangles 01E3, 02E3, 03E3 and 01E4 and partially the rectangles 01E2 and 02E2. Data have been reported according to this definition. The rectangles within the Gulf of Cadiz area are covered by the Fishing Plan AAA/627/2013.

STECF-EWG 14-06 notes that the classification of the trawl mesh size ≥32 mm in point 1 of Annex IIB mixes two clearly defined Portuguese fleets and fisheries. One fishery targets demersal fish species with mesh size 65-69mm and greater (OTB_DEF_>=55_0_0), and the other targets crustaceans with mesh size 55-59mm and greater (OTB_CRU_>=55_0_0), operating in different fishing grounds and depth ranges. The demersal trawl fleet targets a large variety of species, namely horse mackerel (*Trachurus trachurus*), blue whiting (*Micromesistius poutassou*), blue jack mackerel (*Trachurus picturatus*), pouting (*Trisopterus luscus*) and hake (*Merluccius merluccius*). The crustacean trawl fleet operates along the SW and S coasts of Portugal and the main target species are deep water rose shrimp (*Parapenaeus longirostris*), Norway lobster (*Nephrops norvegicus*), other shrimp species and blue whiting. The bottom otter trawl fleet is not allowed to fish inside the 6-mile coastal area, and a closed season is established for the Portuguese crustacean trawl in January each year.

The static gears (gillnets, trammel nets, longline and pots) are mainly used by the so-called Portuguese polyvalent fleet, which are licensed for more than one type of gear. Only gillnets and longlines are regulated within the Annex IIB.

Table 5.7.1 Portuguese Annex IIB regulated gears and trammel nets.

Effort control regime (Annex IIB)	DCF métier (Acronym)	Description
Bottom trawls, Danish seines and similar trawls of mesh size ≥ 32 mm	OTB_DEF_>=55_0_0	Otter bottom trawl targeting demersal fish using mesh size ≥ 65 mm
	OTB_CRU_>=55_0_0	Otter bottom trawl targeting crustacean species using mesh size ≥ 55 mm
Gill-nets of mesh size ≥ 60 mm	GNS_DEF_60-79_0_0	Set gillnet targeting demersal fish using mesh size of 60-79 mm
	GNS_DEF_80-99_0_0	Set gillnet targeting demersal fish using mesh size of 80-99 mm
	GNS_DEF_>=100_0_0	Set gillnet targeting demersal fish using mesh size ≥ 100 mm
Bottom longlines	LLS_DEF_0_0_0	Set longline targeting demersal fish
Trammel nets (non-regulated)	GTR_DEF_80-99_0_0	Set trammel net targeting demersal fish using mesh size of 80-99 mm
	GTR_DEF_>=100_0_0	Set trammel net targeting demersal fish using mesh size ≥ 100 mm

STECF-EWG 14-06 notes that under gears regulated by the Annex IIB there is also a mixture of different Spanish DCF métiers (Table 5.7.2).

The Spanish bottom trawl operating in the Northern and Western coastal waters (ICES Divisions VIIIc and IXa) is prosecuted by vessels with 28 m of average length. The minimum trawl depth is 100 m, the maximum activity period is 18 hours per day and they must stop fishing for a 48-hour continuous period per week. This fleet is composed of otter trawlers, High Vertical Open Trawlers and pair trawlers.

The most important Spanish métiers in 8c and 9a are described below:

Otter trawl “Baca” gear (OTB_DEF_>=55_0_0), characterized by a vertical opening of 1.5-2.5 m and a wingspread of 20-30 m, is allowed to use a cod end mesh size >55, however usually fishes with a 70 mm to catch demersal species, in particular hake (*Merluccis merluccius*), megrims (*Lepidorhombus boscii* and *L. whiffiagonis*) or anglerfish (*Lophius piscatorius and L. budegassa*).

High Vertical Open Trawl “Jurelera” (OTB_MPD_>=55_0_0) permits a higher vertical opening (6-9 m) and is normally uses a smaller mesh size (55 mm), so it is used to target pelagic fish such as horse mackerel (*Trachurus trachurus*) and mackerel (*Scomber scombrus*). As ‘baca’ and ‘jurelera’ gears can be used on the same trip, the identification of the trip métier must be done by multivariate analysis (Punzón et al., 2010) of the landings profile.

The pair bottom trawl fleet (PTB_MPD_>=55_0_0) uses a gear that can reach a vertical opening of 40 m and a wingspread of 130 m. This fleet has to use a minimum mesh size of 55-59 mm to catch 70% of

non-demersal species, or a mesh size of ≥70 mm otherwise. However, both mesh sizes are included into the same DCF mesh range due to the difficulty of splitting both kinds of trips for sampling purposes.

Table 5.7.2 Spanish Annex IIB regulated gears and trammel nets.

Effort control regime (Annex IIB)	**Area**	**DCF Metier acronym**	**Description**
Trawls, Danish seines or similar gears of mesh size ≥ 32 mm	8c & 9a	OTB_DEF_>=55_0_0	(‘Baca’) Otter bottom trawl targeting demersal species (hake, megrim, anglerfish ...) using a cod end mesh size of 70 mm
	8c & 9a North	OTB_MPD_>=55_0_0	(‘Jurelera’) Otter trawl targeting pelagic and demersal species (horse mackerel, mackerel)
		PTB_MPD_>=55_0_0	Pair bottom trawl targeting pelagic and demersal species (blue whiting, hake, mackerel) using a
		SDN_MCF_>=55_0_0	Danish seine targeting cuttlefish
	9a South	OTB_MCD_>=55_0_0	Otter bottom trawl targeting crustaceans and demersal species (rose shrimp, hake, cuttlefish)
Gill-nets of mesh size ≥ 60 mm	8c & 9a North	GNS_DEF_60-79_0_0	(‘Beta’) Set gillnet targeting demersal species (horse mackerel, pouting, hake, ...) using a mesh size of 60 mm
		GNS_DEF_80-99_0_0	(‘Volanta’) Set gillnet targeting hake using a mesh size of 90 mm
		GNS_DEF_>=100_0_0	(‘Rasco’) Set gillnet targeting anglerfish using mesh size of 280 mm
Bottom longlines	8c & 9a	LLS_DEF_0_0_0	Bottom longline targeting demersal species (conger, pomfret, hake, ...)
	9a S	LLS_DWS_0_0_0	Bottom longline targeting silver scabbardfish
Trammel nets (non regulated)	8c & 9a N	GTR_DEF_60-79_0_0	Set trammel net targeting demersal species (cuttlefish, spider crab, rays, ...) using mesh size over 60 mm
	9a S	GTR_DEF_40-59_0_0	Set trammel nets targeting demersal species (cuttlefish, wedge sole, meagre, prawns, ...) using 40-60 mm mesh size

Otter bottom trawl in 9a South (OTB_MCD_>55_0_0) fishes in both Portuguese and Spanish waters and is directed to crustaceans and demersal species such as rose shrimp (*Parapeanaeus longirostris*), hake and cuttlefish (*Sepia officinalis*).

The Northern Spanish gillnet fleet uses three types of nets: “beta”, “volanta” and “rasco” nets (Castro et al., 2011).

- "Beta" gear (GNS_DEF_60-79_0_0) uses mesh sizes of 60 mm to target a variety of demersal species such as horse mackerel, pouting (*Trisopterus luscus*), hake and mullets (*Mullus spp.*).
- "Volanta" gear (GNS_DEF_80-99_0_0) is a gillnet composed by nets with 10 m high and 50 m length, which is regulated under a mesh size of 90 mm to specifically catch hake.
- "Rasco" gillnet is composed by nets with 3.5 m high and 50 m length, and uses a 280 mm mesh size to target anglerfish (GNS_DEF_>=100_0_0).

The main Spanish set longline fleet (LLS_DEF_0_0_0) uses a line with less than 4000 hooks and is used to catch demersal fish as conger (*C. conger*), pomfret and hake, among others.

The Northern Spanish trammel net fleet (GTR_DEF_60-79_0_0) uses a gear made with three walls of netting, the two outer walls being of a larger mesh size (400-500 mm) than the loosely hung inner netting panel (60-90 mm), and targets a variety of demersal species such as cuttlefish, spider crabs or rays.

Annex IIB of CR 39/2013 sets the maximum number of days the fishing vessels are allowed to be present in the area carrying the specified regulated gears (Table 5.7.3). The regulated gear types are named as "3a" (bottom trawler mesh size ≥32 mm), "3b" (gillnet ≥60 mm) and "3c" (bottom longline), using the 2006-2007 regulations numbering. Special conditions are applied to vessels that landed less than 5 tons of hake and less than 2.5 tons of Norway lobster in the year 2010 or 2011 (CR 39/2013). These special conditions, previously referred as IIB72ab according to their numbering (Annex IIB, point 7.2, *a* and *b*) in CR(s) 40/2008 and 43/2009, were updated to IIB52ab in CR(s) 53/2010 and 57/2011 and to IIB61 in CR 43/2012 and CR 39/2013. In order to compare with previous reports, the same notation of the 2006 and 2007 regulations for the special conditions was adopted (IIB72ab).

In 2010, additional days were allocated to Spanish and Portuguese vessels on the basis of permanent cessation of vessels from each country. This different allocation is reflected since then in the annual allowed days at sea.

Table 5.7.3. Historic trends in allowed days at sea by vessel specified in the Council Regulations since 2005.

Annex	AREA	REG GEAR	SPECON (**)	Country	2005	2006	2007	2008	2009	2010	2011	2012	2013
IIB	8c9a	3a, 3b & 3c (*)	none	ESP	264	240	216	194	175	158	158	150	141
				FRA							142	149	134
				PRT							172	155	140
			IIB52ab	ESP	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited
				FRA									
				PRT									

(*) according to 2006 and 2007 regulations

(**) SPECON IIB52ab corresponds to IIB72ab of the regulations prior to 2010

The days of a trip shall not be counted for effort regulation if hake catch (landing + discard) is less than 4% of the trip catch (CR 39/2013).

STECF-EWG 14-06 considers that the use of fishing days (or kW*days) to manage effort of static gears such as gillnets and longlines is a very poor approximation of the effective effort and thus may put at risk the management goals.

In the case of Spanish data some inconsistencies between "gear" and "fishery" (= metier) information could be found in the database. That is because "gear" information comes directly from the logbooks

(official information) and "fishery" information comes from multivariate analysis carried out to identify the metier of each trip (scientific estimations).

5.7.1 ToR 1.a Fishing effort in kWdays, GTdays and number of vessels by Member state and fisheries

In 2013, data on kW*days, GT*days and number of vessels for areas 8c and 9a were provided by Spain, Portugal, France, Germany, Scotland and England by area, gear, special condition and vessel length. EWG effort data time series start in 2000. There has been sporadic effort from Ireland and the Netherlands in previous years. Spain did not provide 2010 and 2011 data.

According to Annex IIB of CR 39/2013, in the context of the recovery plan for Southern hake and *Nephrops* stocks, fishing vessels with overall length above 10 meters using trawl nets with mesh sizes >32 mm, gillnets > 60 mm or bottom longlines might be present within the area for a maximum of 141 days during 2013 if they have Spanish flag, 134 days if they have French flag and 140 days if they have Portuguese flag (Table I of the Annex II B, Table 5.7.3).

If, during 2010 or 2011 these vessels landed less than 5 tonnes of hake and less than 2.5 tonnes of *Nephrops*, special conditions were applied and they were not covered by the effort limitation (Table 5.7.3), but were obliged to not exceed those amounts in 2013. The special conditions reference years were 2001-2003 average for 2005–2009 regulations, 2007 or 2008 for 2010 regulation, 2008 or 2009 for 2011 regulation, 2009 or 2010 for 2012 regulation and 2010 or 2011 for 2013 regulation.

Trawl effort data provided by Spain (2002-2009, 2012, 2013) to the STECF EWG database come from logbooks and show a decreasing trend from 2004 to 2012 and an increase from 2012 to 2013. These data can be compared with the effort data presented by Spain for the same area to the 2013 ICES WGHMM. The 2014 WGBIE[1] report did not update missing effort values for the period 2011-2013. The effort estimates provided to the ICES WG were derived from several sources of data and also presents a decreasing trend (Figure 5.7.1.1, left).

Portugal presented a new set of data for the time series with values slightly higher for 2011 and 2012 when compared with values submitted in the last year's data call for the same years. Effort estimates provided by Portugal (2000-2013) to the EWG database present a decreasing trend between 2007 and 2009, stability in 2009, 2010 and 2011, a slight increase in 2012 and a decrease in 2013. Portuguese data come mostly from logbooks and, for those that do not have logbooks (< 10 m), from sales records. The trends in trawl effort data provided to this EWG and included in the ICES WGHMM 2013 report, for the Portuguese trawl fleet operating in the same area, were compared. The data provided to the ICES WG come from a standardized trawl effort series based on logbook data (ICES, 2013). The data presented here also show a decreasing trend until 2010, but no effort estimates were available for the period 2011-2013 (Figure 5.7.1.1, right).

[1] The ICES working group WGHMM (Working Group on the assessment of Southern Shelf Stocks of Hake, Monk and Megrim), responsible for the assessment of demersal stocks in Iberian waters was renamed as WGBIE (Working Group for the Bay of Biscay and the Iberian waters Ecoregion) since 2014. Along the text, WGHMM and WGBIE are referred by their acronyms.

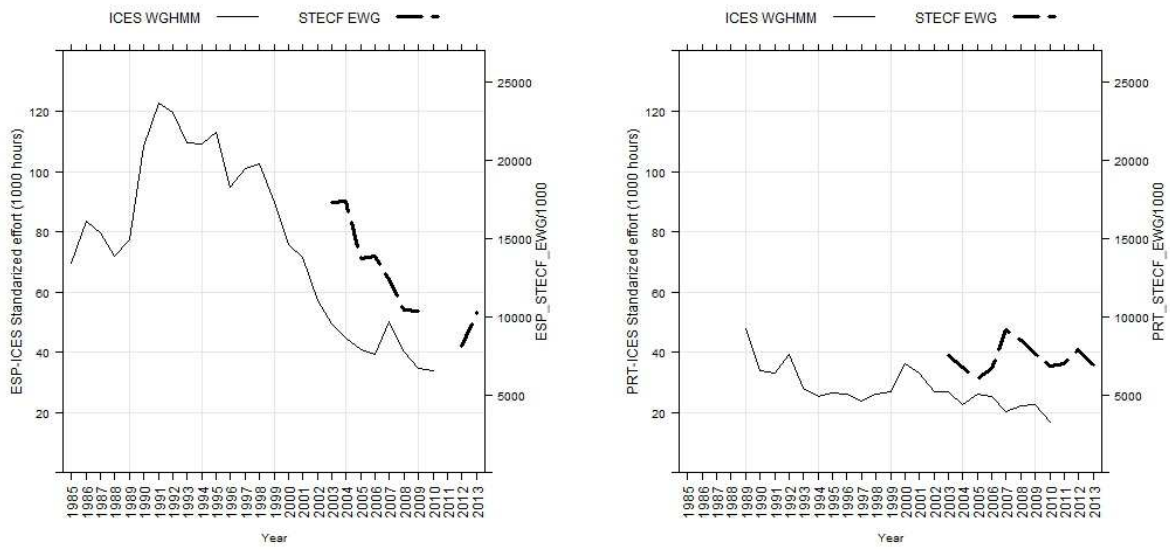


Figure 5.7.1.1. Trawl effort presented to ICES WGHMM 2013 and to STECF EWG data base (this report) by Spain (left panel) and Portugal (right panel).

Figure 5.7.1.2 shows the decreasing trend until 2012 in the 8c and 9a trawl fleets from the 2013 ICES WGHMM that corroborates the decreasing trends found in the EWG trawl effort data.

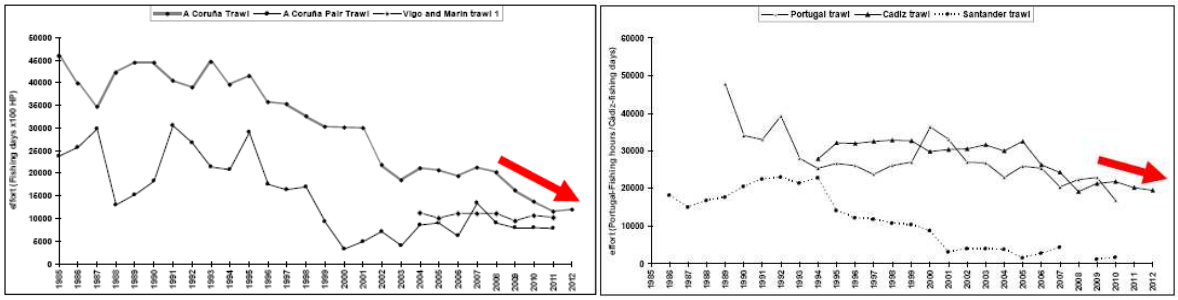


Fig. 5.7.1.2. 8c and 9a trawl fleets (left Spanish, right Portuguese) effort from the 2013 ICES WGHMM (1985-2012).

The 2000-2013 effort data in terms of kW*days by Member State are given in Table 5.7.1.1.

Table 5.7.1.1. Trend in nominal effort (kW*days at sea) by Member State and existing derogations given in Table 1 of Annex IIB (CR 39/2013), 2004-2013. Derogations are sorted by gear, special condition (SPECON) and country. Data quality is summarised in section 4. Note that the gear type "3T" denotes the non-regulated effort for trammel gear with all mesh sizes. **No Spanish data in 2010 and 2011.**

annex	reg_area	reg_gear_	specon	country	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
IIB	8C-9A	3A	NONE	ENG	-	1,277	-	-	-	-	-	-	-	2,484
IIB	8C-9A	3A	NONE	ESP	14,344,840	11,072,135	11,473,544	9,902,350	7,975,346	7,959,428	-	-	8,113,213	10,268,598
IIB	8C-9A	3A	NONE	FRA	110,098	198,178	345,256	274,429	315,954	315,954	47,904	71,646	37,581	27,489
IIB	8C-9A	3A	NONE	IRL	-	-	1,612	-	-	-	82	-	-	-
IIB	8C-9A	3A	NONE	PRT	5,074,403	4,425,695	6,137,863	8,941,196	8,299,896	7,380,318	6,493,382	6,082,354	6,297,702	5,593,564
IIB	8C-9A	3A	NONE	SCO	-	-	-	-	-	-	-	-	-	442
IIB	8C-9A	3A	IIB72AB	ESP	3,051,855	2,677,605	2,420,208	2,458,721	2,478,225	2,403,446	-	-	-	-
IIB	8C-9A	3A	IIB72AB	FRA	-	-	-	-	-	-	-	-	39,910	-
IIB	8C-9A	3A	IIB72AB	PRT	1,657,564	1,609,414	560,066	186,292	195,742	314,695	310,341	897,592	1,559,753	1,315,161
IIB	8C-9A	3B	NONE	ENG	-	-	26,652	1,984	-	-	-	-	-	-
IIB	8C-9A	3B	NONE	ESP	684,167	787,527	916,038	1,010,060	1,195,943	1,480,125	-	-	1,474,835	2,159,400
IIB	8C-9A	3B	NONE	FRA	28,023	97,700	69,478	128,595	296,765	296,765	114,202	61,604	46,046	49,511
IIB	8C-9A	3B	NONE	PRT	32,276	144,697	231,204	816,228	886,822	763,806	680,987	285,066	227,532	388,084
IIB	8C-9A	3B	NONE	SCO	-	-	3,234	-	-	-	-	-	-	-
IIB	8C-9A	3B	IIB72AB	ESP	865,145	1,033,742	916,120	1,056,900	1,330,193	1,668,152	-	-	-	-
IIB	8C-9A	3B	IIB72AB	FRA	-	-	-	-	-	-	-	-	36,742	1,323
IIB	8C-9A	3B	IIB72AB	PRT	2,695	51,269	116,027	152,925	176,030	276,056	248,338	179,928	177,891	105,861
IIB	8C-9A	3C	NONE	ENG	-	-	4,928	-	-	-	-	-	-	-
IIB	8C-9A	3C	NONE	ESP	383,472	545,271	830,548	522,362	521,613	728,602	-	-	2,480,958	2,261,605
IIB	8C-9A	3C	NONE	FRA	3,972	2,094	588	700	40,052	40,052	83,794	46,310	33,643	41,064
IIB	8C-9A	3C	NONE	IRL	-	-	1,684	2,472	-	-	-	-	-	-
IIB	8C-9A	3C	NONE	PRT	33,808	39,774	95,715	149,000	139,305	111,767	91,062	102,865	115,392	114,379
IIB	8C-9A	3C	NONE	SCO	-	-	-	-	-	-	2,323	3,437	2,294	-
IIB	8C-9A	3C	IIB72AB	ESP	692,039	686,974	755,191	846,255	897,264	1,099,242	-	-	-	-
IIB	8C-9A	3C	IIB72AB	FRA	-	-	-	-	-	-	-	-	22,172	14,784
IIB	8C-9A	3C	IIB72AB	PRT	280,951	572,386	869,687	841,563	750,091	864,313	844,144	907,462	239,579	323,207
IIB	8C-9A	3T	NONE	ESP	736,892	955,031	742,397	716,707	917,963	932,788	-	-	868,216	852,762
IIB	8C-9A	3T	NONE	FRA	525	-	1,878	-	2,823	2,823	5,048	3,686	6,551	6,441
IIB	8C-9A	3T	NONE	PRT	40,252	253,707	525,524	1,252,867	1,026,614	1,264,013	1,437,577	1,430,235	1,404,160	1,446,426
IIB	8C-9A	NONE	NONE	ENG	-	-	3,136	-	-	-	-	-	-	-
IIB	8C-9A	NONE	NONE	ESP	16,299,264	15,443,521	13,662,008	14,825,151	13,411,326	15,960,434	-	-	4,050,259	5,598,105
IIB	8C-9A	NONE	NONE	FRA	97,130	125,835	318,711	317,890	44,551	44,551	47,003	38,166	84,317	22,259
IIB	8C-9A	NONE	NONE	GER	-	-	-	15,685	23,373	6,174	7,272	4,040	-	3,649
IIB	8C-9A	NONE	NONE	IRL	-	-	6,020	-	-	-	-	-	-	-
IIB	8C-9A	NONE	NONE	PRT	5,402	78,981	159,803	304,567	440,799	393,947	370,203	409,189	383,984	762,964
IIB	8C-9A	NONE	NONE	SCO	-	-	-	-	-	-	-	-	-	2,253

Information on trends in GTdays is available on the website: http://stecf.jrc.ec.europa.eu/ewg1413

In addition to the 2006 and 2007 regulation defined gear types "3A" (bottom trawler mesh size ≥32 mm), "3B" (gillnet ≥60 mm), "3C" (bottom longline) and the undefined ("NONE"), the tables include trammel nets under the coding "3T", as they were found to contribute significantly to the static effort deployed (7% of the kWdays in 2012 and 2013).

In May 2014 Spain only provided 2013 data, not changing previous data, while Portugal provided the whole series. Some differences were found between the resubmitted data in 2014 and the data submitted in 2013. The new effort values are higher but the trends remain the same.

Figure 5.7.1.3 shows effort trends for Spain and Portugal, the main players in the area (99% of the kWdays over the whole time series), for the period 2003 – 2013. No Spanish data were available for 2010 and 2011.

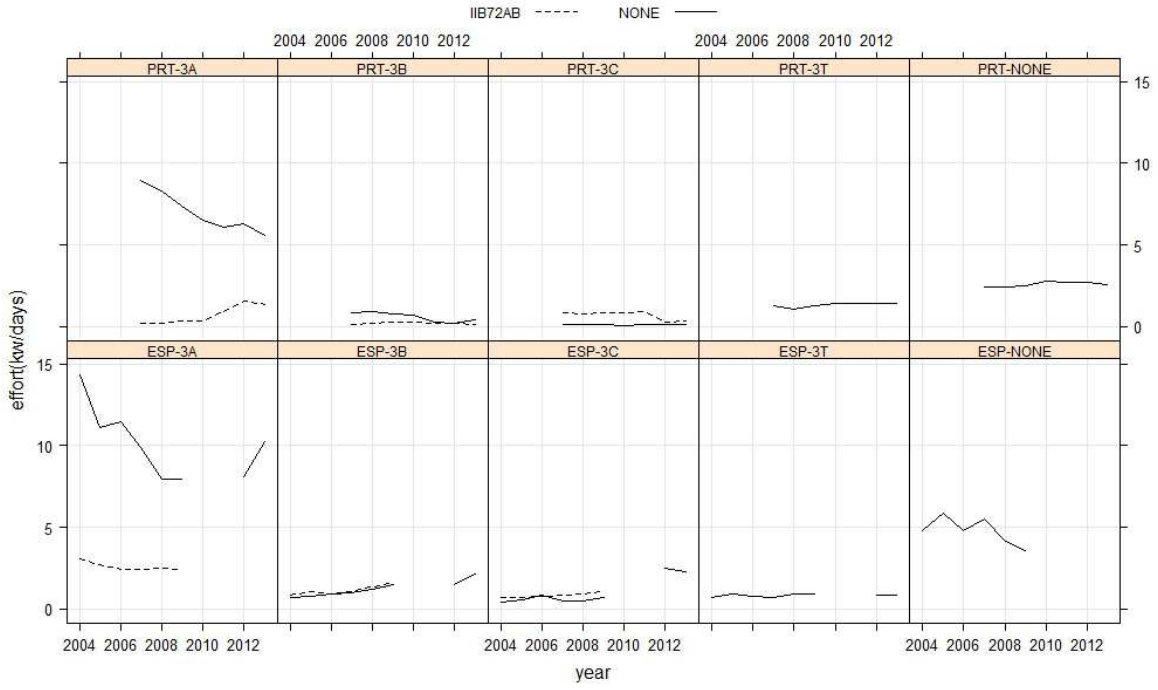


Fig. 5.7.1.3. Effort (kW*days) trends by gear type and Member State (2004-2013). There are no Spanish data for 2010 and 2011. Upper panel: Portugal, Lower panel: Spain. IIB72AB: without effort limitation.

The data submitted by the Member States for the years 2000-2002, initial period of the time series, do not seem realistic as several gears present very low effort data and/or gaps, therefore they were omitted from Figure 5.7.1.3. Both Spanish and Portuguese information comes from logbooks and for the Portuguese vessels with length under 10 m, from sales notes. Logbooks from Portuguese vessels before 2007 were not completely recorded in the national database and were also omitted in the graph in order to not give a wrong perception of the effort trend in this period. Spanish data from 2010 and 2011 were not available. See section 4 for more details in data quality provided by Member States. In 2012 and 2013 there was not Spanish effort under special conditions because no vessel had applied for that in those years.

Spanish and Portuguese regulated trawlers and Spanish pelagic seine (ESP-3A, PRT-3A and ESP-pelagic seine, respectively) were the gears deploying more effort in the area in 2012 and 2013 (27%, 20% and 9% respectively).

The effort of trawlers (3A) under effort restrictions (Fig. 5.7.1.3 continuous line) decreased since 2007 in the case of Portugal and since 2003 in the case of Spain. Spanish 3A effort increased in 2013.

The effort of gillnet (3B) and longline (3C) under effort restrictions (Fig. 5.7.1.3 continuous line) was stable for the last years for Portugal and slightly increased for Spain.

The effort of trawlers (3A) without effort restrictions, i.e. with special conditions (Fig. 5.7.1.3 IIB72ab, dashed line) has been stable in the period 2007-2010 in the Portuguese case, with a slight increase since 2010, and stable between 2004 and 2009 in the case of Spain. As referred to above, no Spanish vessel applied for special conditions in 2012 and 2013.

The effort of Portuguese longliners (3C) without effort restrictions (Fig. 5.7.1.3 IIB72ab, dashed line) decreased in the last years. Trammel (3T) effort is stable in the last years. .

Spanish unregulated gears effort including 3T in 2012 and 2013 was 29% and 31% of the total effort in areas 8c and 9a, respectively. The distribution of this effort by unregulated gears is shown in Figure 5.7.1.4.

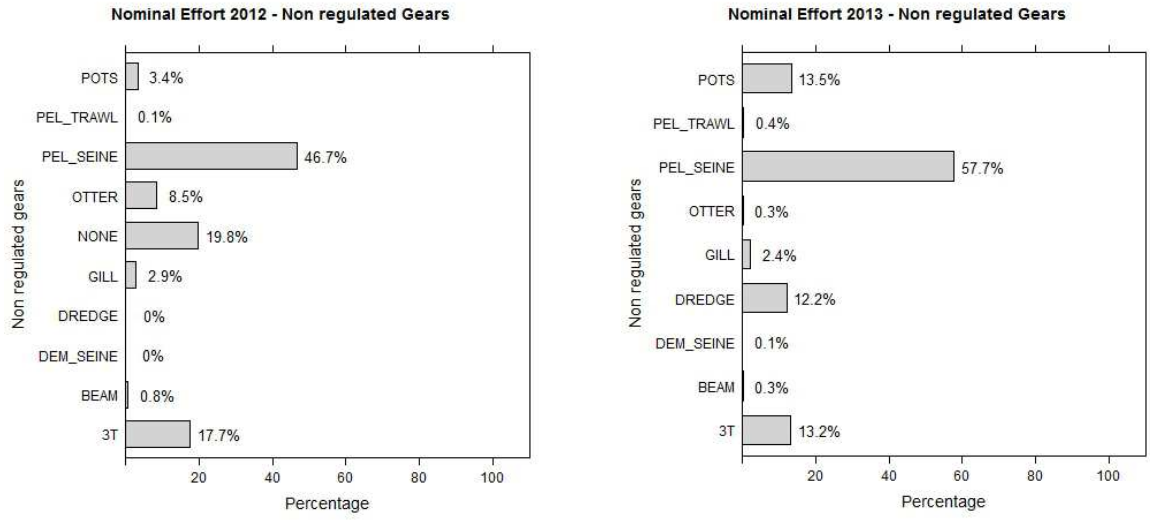


Figure 5.7.1.4. Spanish unregulated gears effort (KW*day) by gear in 2012 and 2013. “NONE” gears (24%) are composed by tuna and mackerel gears (troll and hand lines).

Table 5.7.1.2 lists the trend in effort by derogation since 2004 in terms of kW*days at sea. GT*days at sea and number of vessels are available on the web. The effort of 3A under effort regime is stable since 2009. Apart from trammel gear, all other unregulated gears show a decrease in the effort deployed over recent years.

Table 5.7.1.2. Trend in nominal effort (kW*days at sea) by derogations given in Table 1 of Annex IIB (CR 39/2013), 2004-2013. Derogations are sorted by gear and special condition (SPECON) (all countries together). Data qualities are summarised in section 4.3. Note that the gear type "3T" denotes the non-regulated (effort) trammel gear with all mesh sizes. **No Spanish data in 2010 and 2011.**

annex	reg_area_	reg_gear_	specon	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
IIB	8C-9A	3A	NONE	19,529,341	15,697,285	17,958,275	19,117,975	16,591,196	15,655,700	6,541,368	6,154,000	14,448,496	15,892,577
IIB	8C-9A	3A	IIB72AB	4,709,419	4,287,019	2,980,274	2,645,013	2,673,967	2,718,141	310,341	897,592	1,599,663	1,315,161
IIB	8C-9A	3B	NONE	744,466	1,029,924	1,246,606	1,956,867	2,379,530	2,540,696	795,189	346,670	1,748,413	2,596,994
IIB	8C-9A	3B	IIB72AB	867,840	1,085,011	1,032,147	1,209,825	1,506,223	1,944,208	248,338	179,928	214,633	107,184
IIB	8C-9A	3C	NONE	421,252	587,139	933,463	674,534	700,970	880,421	177,179	152,612	2,632,287	2,417,048
IIB	8C-9A	3C	IIB72AB	972,990	1,259,360	1,624,878	1,687,818	1,647,355	1,963,555	844,144	907,462	261,751	337,991
IIB	8C-9A	3T	NONE	777,669	1,208,738	1,269,799	1,969,574	1,947,400	2,199,624	1,442,625	1,433,921	2,278,927	2,305,629
IIB	8C-9A	NONE	NONE	16,401,796	15,648,337	14,149,678	15,463,293	13,920,049	16,405,106	424,478	451,395	4,518,560	6,389,231
			TOTAL	**44,424,773**	**40,802,813**	**41,195,120**	**44,724,899**	**41,366,690**	**44,307,451**	**10,783,662**	**10,523,580**	**27,702,730**	**31,361,815**

Regulated trawl (3A) deploys most effort in the area (62%), being most of it (90%) under effort control in 2012 and 2013. Passive gears (3B, 3C and 3T) accounted for approximately 27% of all effort in 2012 and 2013. However, such results have a limited meaning regarding the fishing pressure exerted by these fleets, since the unit kW*day does not take into account the number of hooks deployed and area covered by the nets and hence it is a poor indicator of the fishing activity. In 2012 and 2013, about 19% of the effort was assigned to other gears than the regulated ones ("3T" and "NONE" gears), of which trammel nets ("3T") contribute 8% to the overall effort deployed. Most of this effort is deployed by gears that do not target hake, *Nephrops* or anglerfish.

Figure 5.7.1.5 shows the effort trends by gear type in the period 2003-2013. Effort control measures started in 2005. There were not Spanish data in 2010 and 2011. The effort has decreased since 2004 in regulated trawlers (3A) and since 2007 in the unregulated gears. The effort has been stable between 2012 and 2013 in regulated gillnet (3B), regulated longline (3C) and in trammel (3T).

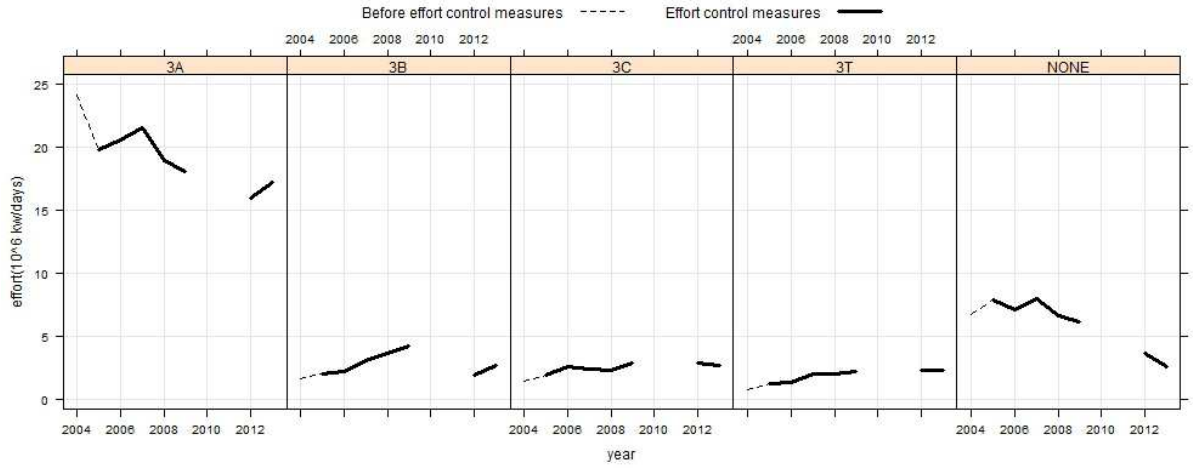


Fig. 5.7.1.5. Effort trends by gear type (Spain and Portugal together). There were not Spanish data in 2010 and 2011. Period before effort control measures as dashed line. Fishing effort regime started in 2005.

5.7.1.1 Spatial distribution of effective fishing effort by statistical rectangle

Portugal, Spain, France and Scotland submitted effort by ICES rectangle. Figures 5.7.1.1.1, 5.7.1.1.2 and 5.7.1.1.3 show the distribution of Spanish and Portuguese effort for regulated gears, with effort control ("NONE") and without effort restriction ("IIB72AB") for the period 2003-2013. For the years 2010 and 2011, only the effort from Portuguese fleets is plotted because no Spanish data were available for those years. In 2012 and 2013 no Spanish vessel applied for the effort special condition (IIB72AB). 2003-2009 Spanish longline effort was misallocated in the figure to specon "NONE".

As referred in the introduction of section 5.7, STECF-EWG considers that the use of fishing days (or kW*days) to manage effort of static gears such as gillnets and longlines is a very poor approximation of the effective effort. Although the figures present the effective effort in the same units, the effort deployed by the different gear groups is not comparable.

In 2014, the number of records provided by Portugal for the year 2013 was very low, the resulting total spatial effort was not comparable with previous years' spatial distribution and therefore excluded from

Figures 5.7.1.1.1 to 5.7.1.1.3. As stated in chapter 4, this dataset shall deserve a special attention from the Portuguese authorities during the next year's data submission.

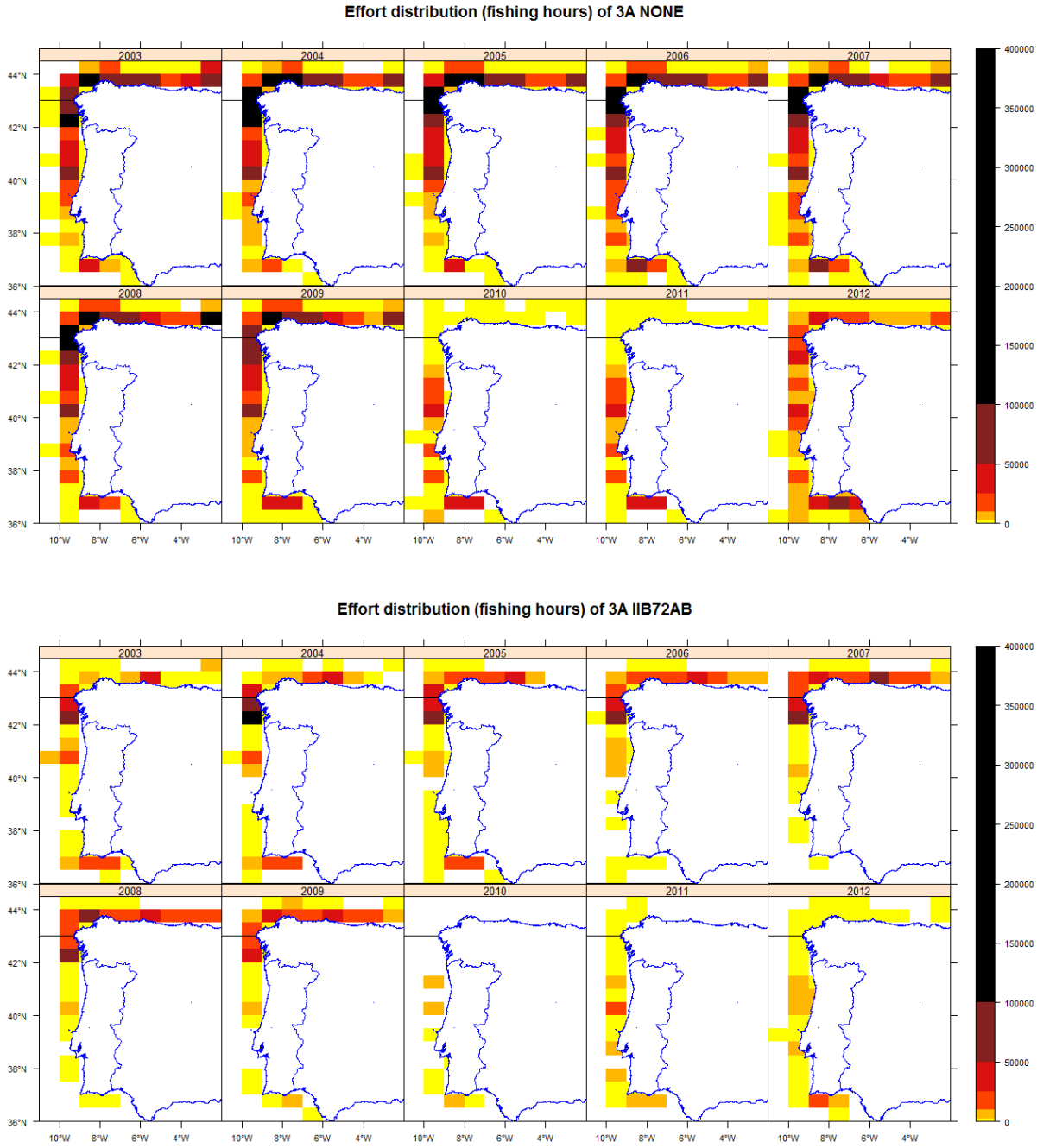


Figure 5.7.1.1.1. Effort spatial distribution for regulated trawl (gear 3A) without (upper panel) and with special conditions (lower panel) for the period 2003-2012. **No Spanish data for the years 2010 and 2011.** In 2012, no Spanish vessel applied for the effort special condition (IIB72AB).

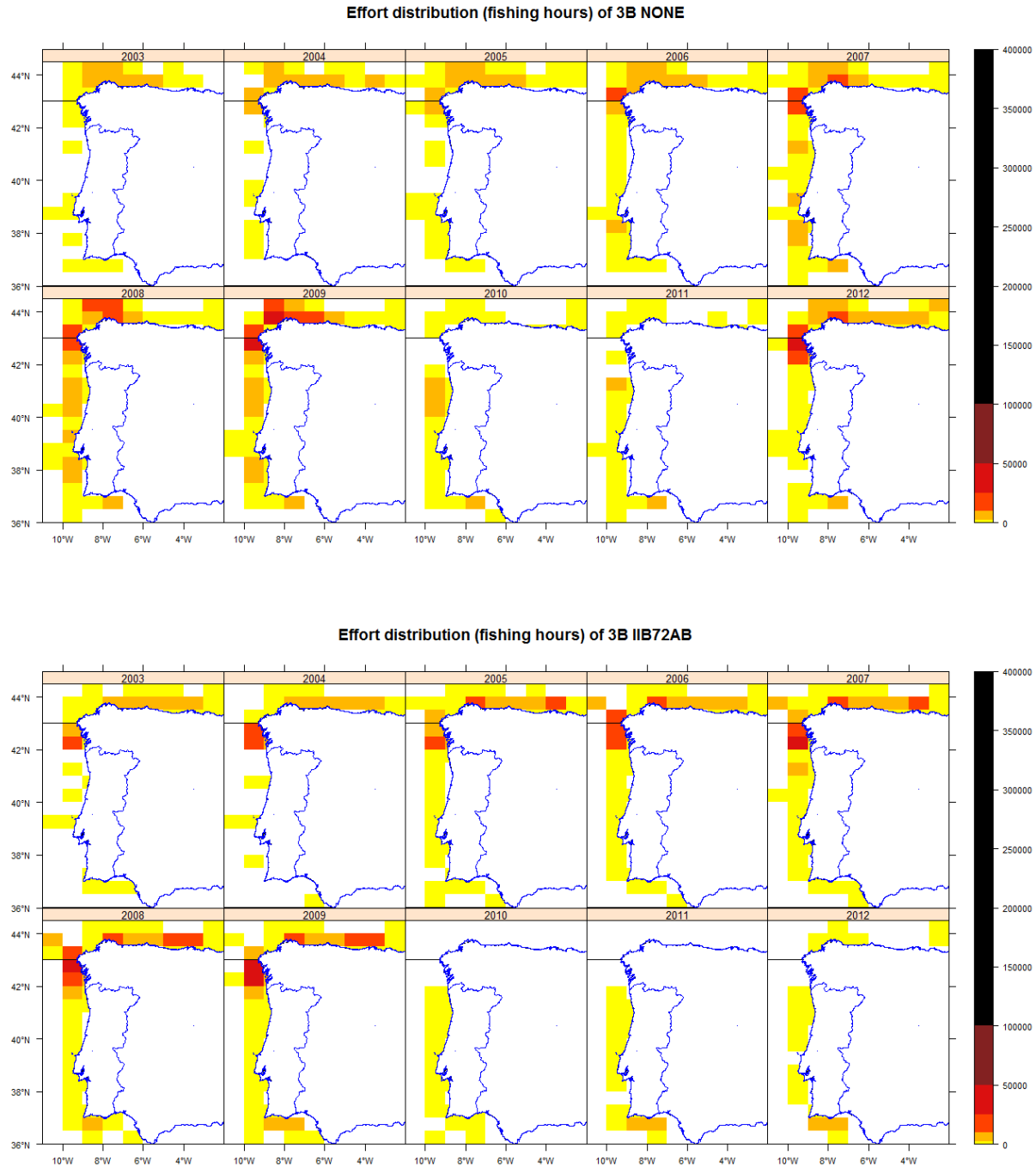


Figure 5.7.1.1.2. Effort spatial distribution for regulated gillnets (gear 3B) without (upper panel) and with special conditions (lower panel) for the period 2003-2012. **No Spanish data for the years 2010 and 2011.** In 2012 and 2013 no Spanish vessel applied for the effort special condition (IIB72AB).

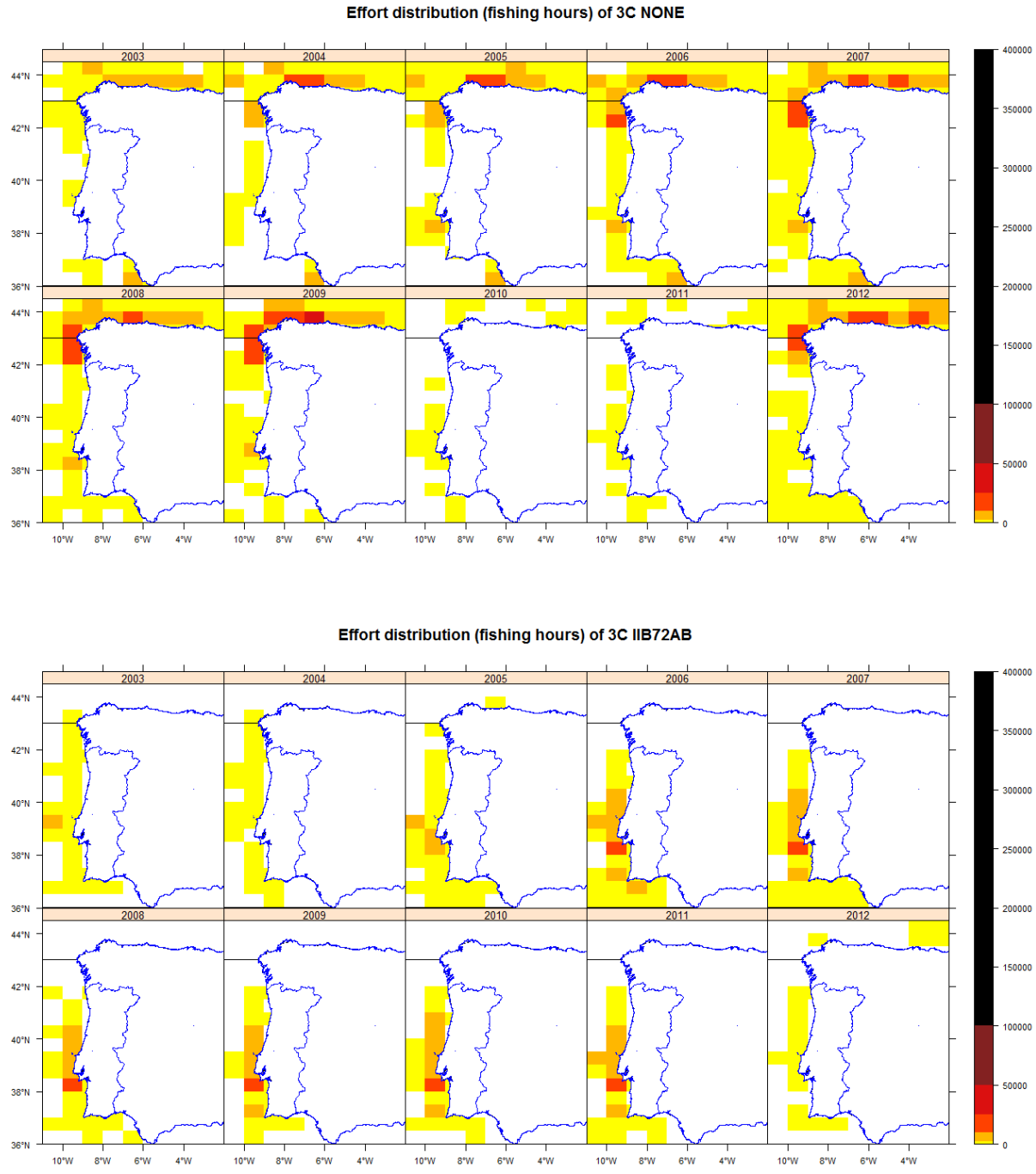


Figure 5.7.1.1.3. Effort spatial distribution for longlines (gear 3C) without (upper panel) and with special conditions (lower panel) for the period 2003-2012. **No Spanish data for the years 2010 and 2011.** In 2012 no Spanish vessel applied for the effort special condition (IIB72AB).By mistake, in the period 2003-2009, all Spanish effort under category “3C IIB72AB” was submitted as “3C NONE”.

5.7.2 ToR 1.b Catches (landings and discards) of hake and Norway lobster in weight and numbers at age by Member State and fisheries

Catch time series in the EWG database included 2003-2013 data.

Spain provided a new dataset for discard and landings for all years (2003-2009 and 2012-2013) by quarter; however compared with the data submitted last year, only discard estimates were updated. Neither landings nor discard data were provided by Spain for the years 2010 and 2011

In 2014, Portugal submitted the entire dataset for discards and landings, though only revising the discard estimates for otter trawl for the period 2004-2012. Landings remain the same as those previously submitted.

Netherlands, England and Scotland have provided sporadic landings data along the time series in previous years. France and Ireland have submitted catch data for 2013.

Member States (MS) did not provide hake information by age because there are relevant doubts about this species ageing (ICES, 2009, 2010a). For *Nephrops* there is no standardized ageing methodology. Length composition of the catches presented to ICES assessment working groups are available for the DCF metiers, but could not be uploaded to the database because the database accepts only age compositions.

Hake landings provided to the EWG database (this report) (2003-2013) come mainly from logbooks and show a reduction of 64% between 2009 and 2012. These data were compared with the landings data presented for the same area to the 2014 ICES WGBIE in order to check if this high drop is real. ICES WG landings are estimates made from different sources of data and show a decrease between 2009 and 2012 of 24% (Figure 5.7.2.1, left). The landings reported to this EWG and to the ICES WG were about the same until 2009 but, in 2012 and 2013, the EWG landings are 46% and 66% of the values included in the ICES WGBIE report. This is due to much lower landings reported in logbooks than in sales notes and high values for unallocated catches estimated by ICES in these years.

Hake discard data provided to the EWG data base (2003-2013) show high discard weight variability in the period pivoting around 3000 tonnes per year. Discards data from the year 2003 were not taken into account since values were abnormally low. This was due to incomplete metier identification in the Spanish landings in 2003 that prevented a complete raising of Spanish discards that year. In Portugal, the sampling programme for discards only started in the second half of 2003. Thus, no discard estimates were produced for this year.

Discard values provided to the EWG are similar to those presented by the Member States to ICES WGBIE, following similar trends. The very high value for discards in 2009 was corrected in this year's submission. The discards of hake reported to the EWG in 2013 are twice the value of 2012 (Figure 5.7.2.1, right), while the increase in landings was 34%.

Hake discard quality index for trawl is A (high representativeness) in 2004-2013.

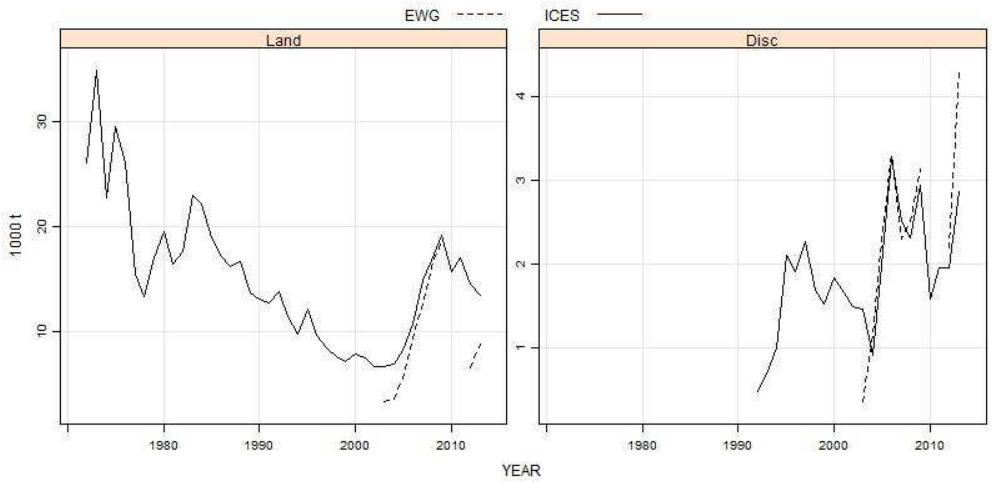


Figure 5.7.2.1. Comparison of the 8c & 9a hake landings and discards (tonnes) presented to ICES WGBIE2014 and STECF EWG database (this report) for all countries and gears (1972-2013). There were no Spanish data from 2010 and 2011 provided to STECF. Notice the different scales between graphs.

Nephrops landings provided to the EWG database (this report) (2003-2013) come from logbooks and show a decrease of 21% relative to 2012. These data were compared to the landings presented for the same area to the 2014 ICES WGBIE. ICES WG landings are estimates made from different sources of data and present higher landing values than those provided to this EWG. For the same period (2012-2013), the ICES landing values show a decrease of 33% (Figure 5.7.2.2). This drop can be explained by the continuous reduction of the TAC.

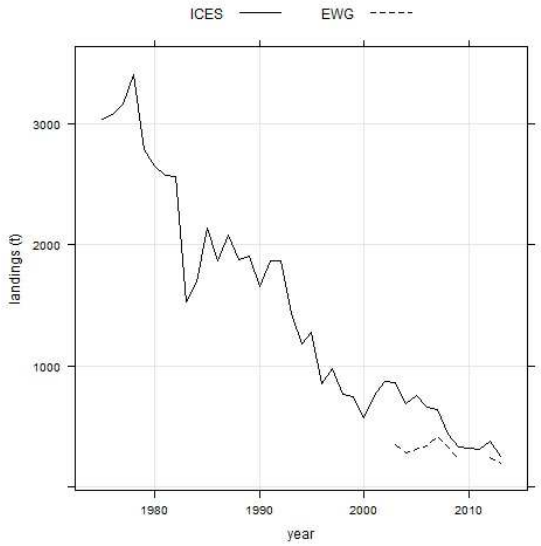


Figure 5.7.2.2. Comparison of the 8c & 9a *Nephrops* landings (tonnes) presented to ICES WGBIE 2014 and STECF EWG data base (this report) for all countries and gears (1975-2013). There were no Spanish data reported for the years 2010 and 2011 to STECF.

In general, there are no *Nephrops* discards from Spanish or Portuguese fisheries because of its very high commercial value. Discard rates lower than 2% in almost all years except for 2004 (5% of catch was discarded, 14 t) and 2005 (13%, 44 t). These values cannot be compared with those in the ICES WGBIE because the ICES group considers *Nephrops* discards in the area to be negligible.

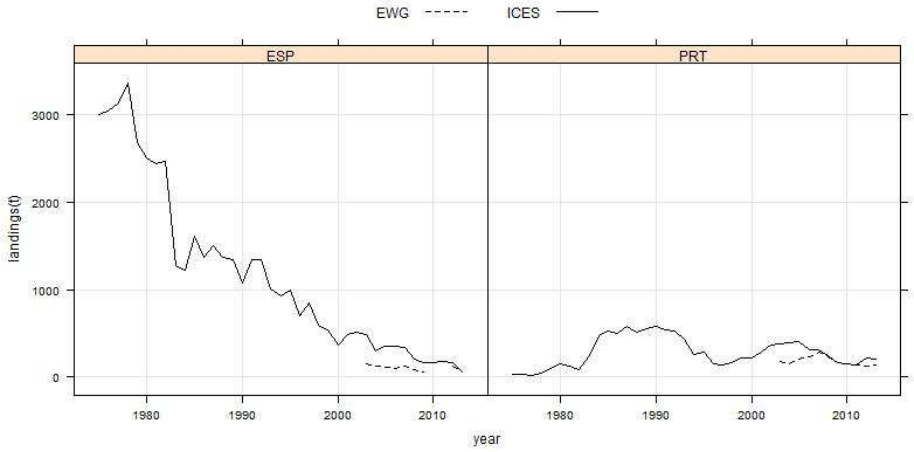


Figure 5.7.2.3. Landings of Norway lobster reported in ICES WGBIE 2014 report from the two main countries fishing in 8c-9a. Portuguese landings come only from Functional Units 28 & 29 (SW and S Portugal) in ICES area 9a while Spanish landings come from both 8c and 9a.

The contributions of the different group of gears to the overall landings can be taken from Table 5.7.2.1. Spanish and Portuguese regulated trawls landed 91% of total *Nephrops* landings in 2013 (Table 5.7.2.1).

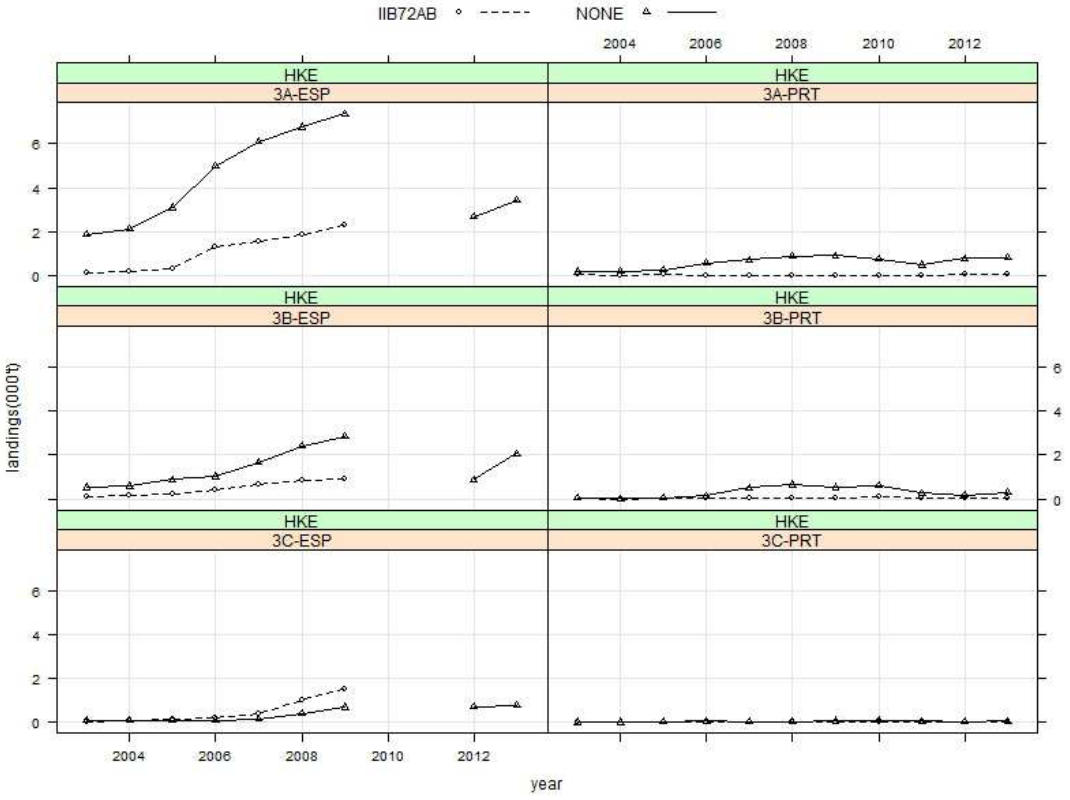
Nephrops discard quality index for trawl is A (high representativeness) in most of the years.

The following figures present the landings and discards by group of gears in weight for hake (HKE) and *Nephrops* (NEP).

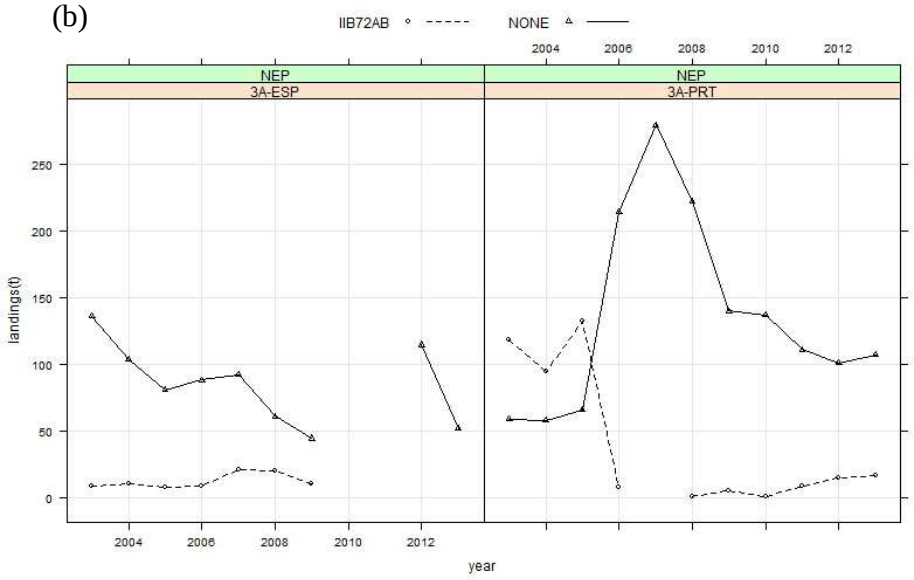
Table 5.7.2.1. Hake and *Nephrops* landings and discards (t) by species and derogation, 2003-2013. Regulation gears codes according to the CR No 41/2007: "3A" – bottom trawls of mesh size ≥ 32 mm, "3B" – gillnets of mesh size ≥ 60 mm, "3C" – bottom long-lines. Gear type "3T" denotes the non-regulated (effort) trammel gear with all mesh sizes, gear type "NONE" contains other gears and the gears not allocated. "--" means "not available", "0" means "0 tonnes". **No Spanish data for 2010 and 2011.**

					2004		2005		2006		2007		2008		2009		2010		2011		2012		2013	
annex	area	reg gear	specon	species	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D
IIB	8C-9A	3A	none	HKE	2,310	1,069	3,370	1,802	5,584	2,907	6,841	2,035	7,686	2,181	8,313	2,911	762	653	494	943	3,461	1,825	4,249	4,230
IIB	8C-9A	3A	IIB72AB	HKE	185	82	398	476	1,300	388	1,534	241	1,873	310	2,294	220	7	6	17	32	70	41	59	22
IIB	8C-9A	3B	none	HKE	623	--	1,040	--	1,232	--	2,322	--	3,406	--	3,698	--	844	--	381	--	1,108	255	2,595	13
IIB	8C-9A	3B	IIB72AB	HKE	139	--	222	--	427	--	704	--	872	--	934	--	82	--	37	--	164	--	52	--
IIB	8C-9A	3C	none	HKE	83	--	139	--	155	--	210	--	538	--	864	--	181	--	110	--	776	20	876	--
IIB	8C-9A	3C	IIB72AB	HKE	63	--	134	--	243	--	413	--	1,008	--	1,566	--	32	--	37	--	66	--	57	--
IIB	8C-9A	3T	none	HKE	20	--	77	--	94	--	266	--	234	--	358	--	227	--	347	--	504	36	589	--
IIB	8C-9A	none	none	HKE	229	1	286	1	311	25	452	15	587	19	525	10	4	--	22	--	488	13	401	26
IIB	8C-9A	3A	none	NEP	168	7	155	18	320	0	386	0	294	2	195	2	140	--	115	--	223	1	159	3
IIB	8C-9A	3A	IIB72AB	NEP	106	7	140	25	17	0	21	0	21	0	17	1	1	--	9	--	16	--	17	0
IIB	8C-9A	3B	none	NEP	0	--	1	--	1	--	--	--	--	--	0	--	0	--	--	--	0	--	0	--
IIB	8C-9A	3B	IIB72AB	NEP	--	--	0	--	0	--	1	--	0	--	0	--	--	--	--	--	--	--	--	--
IIB	8C-9A	3C	none	NEP	--	--	--	--	--	--	0	--	--	--	--	--	--	--	--	--	--	--	--	--
IIB	8C-9A	3C	IIB72AB	NEP	--	--	--	--	--	--	--	--	0	--	--	--	--	--	--	--	--	--	--	--
IIB	8C-9A	3T	none	NEP	1	--	1	--	1	--	0	--	--	--	1	--	--	--	--	--	0	--	0	--
IIB	8C-9A	none	none	NEP	5	0	15	0	6	0	10	0	15	0	11	0	--	--	16	--	6	--	18	0

(a)


IIB72AB
NONE
HKE
3A-ESP
HKE
3A-PRT
HKE
3B-ESP
HKE
3B-PRT
HKE
3C-ESP
HKE
3C-PRT
landings(000't)
year

(b)


IIB72AB
NONE
NEP
3A-ESP
NEP
3A-PRT
landings(t)
year

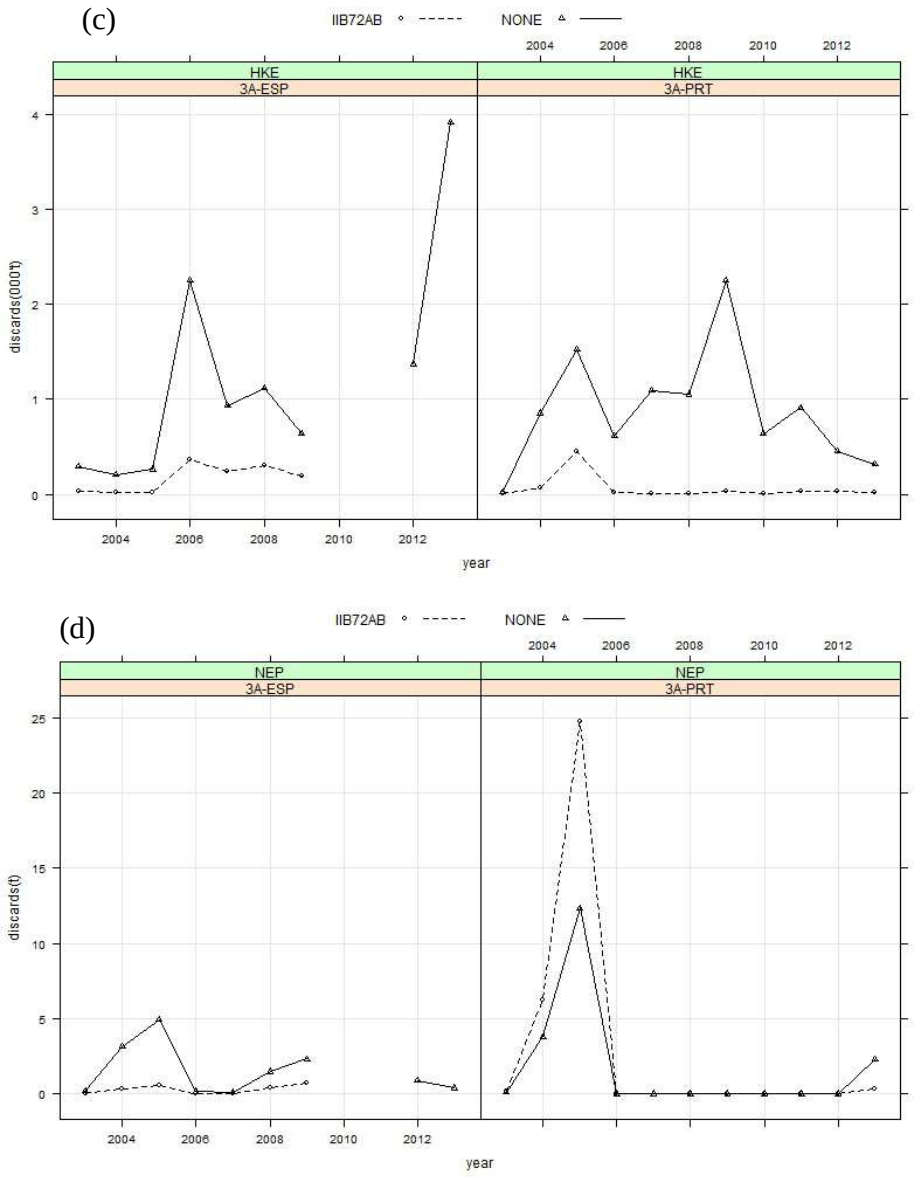


Fig. 5.7.2.4. Trends in landings (a and b) and discards (c and d) of hake and *Nephrops* by Member State, regulated gear and specon. Since 2012, no Spanish vessels applied for special conditions.

There is a decrease in the Spanish hake landings from 2009 to 2012 for trawl, gillnet and bottom longline (Fig. 5.7.2.5) that does not seem very realistic (see previous comments about Figure 5.7.2.1). Portuguese landings of hake are more or less stable in recent years except for a slight decrease in gillnet.

Spanish landings of *Nephrops* show a great increase in 2012, decreasing again in 2013. Portuguese landings show a decreasing trend in 2007-2012, and remain at around the same level in 2013. Note that *Nephrops* landings are constrained by the TAC level, which has been reduced 10% per year since 2006. In 2013, *Nephrops* fishing was closed in September.

Fleets without fishing effort limitation (IIB72AB) discard less quantity than the fleets with limitation (NONE) in almost all the cases.

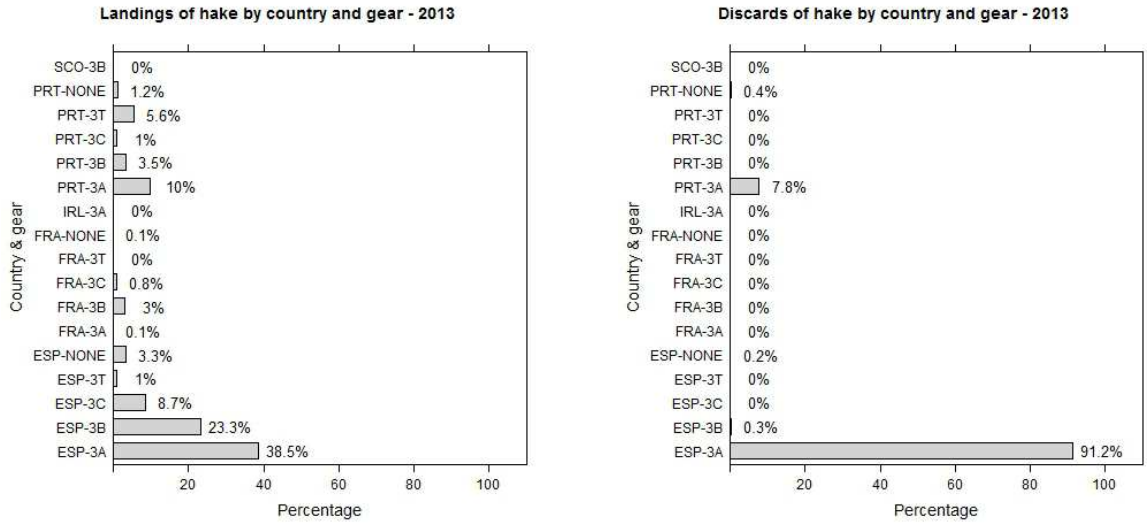


Figure 5.7.2.5. Hake landings (left) and discards (right) by fleet in 8c & 9a in 2013 (ESP: Spain, PRT: Portugal, FRA: France).

The Spanish regulated trawlers (3A) landed 39% of hake, followed by Spanish regulated gillnetters (3B, 23%) and Portuguese regulated trawlers (3A, 10%, Fig. 5.7.2.5). Apart from the regulated trawlers (3A) the second most important fleet in hake landings operates with the non-regulated trammel net (3T) with the Portuguese trammel fleet landing 5.6% of hake total weight.

Due to the high discard rate of hake by the Spanish regulated trawlers (3A), which represents about 91% of total volume of hake discards in 2013 (3904 t out of 4291t), the percentage of discards attributed to the other regulated and non-regulated gears and countries becomes almost negligible.

The Spanish regulated trawlers (3A) landed 38.5% of 8c and 9a hake, and discarded 91% of the total discarded volume.

The next fleet in hake discards rank is the Portuguese regulated trawl (3A, 7.8% of 8c and 9a hake discard). All the Spanish regulated gears were under the normal effort regime since 2012, as no vessel had requested to operate under special conditions.

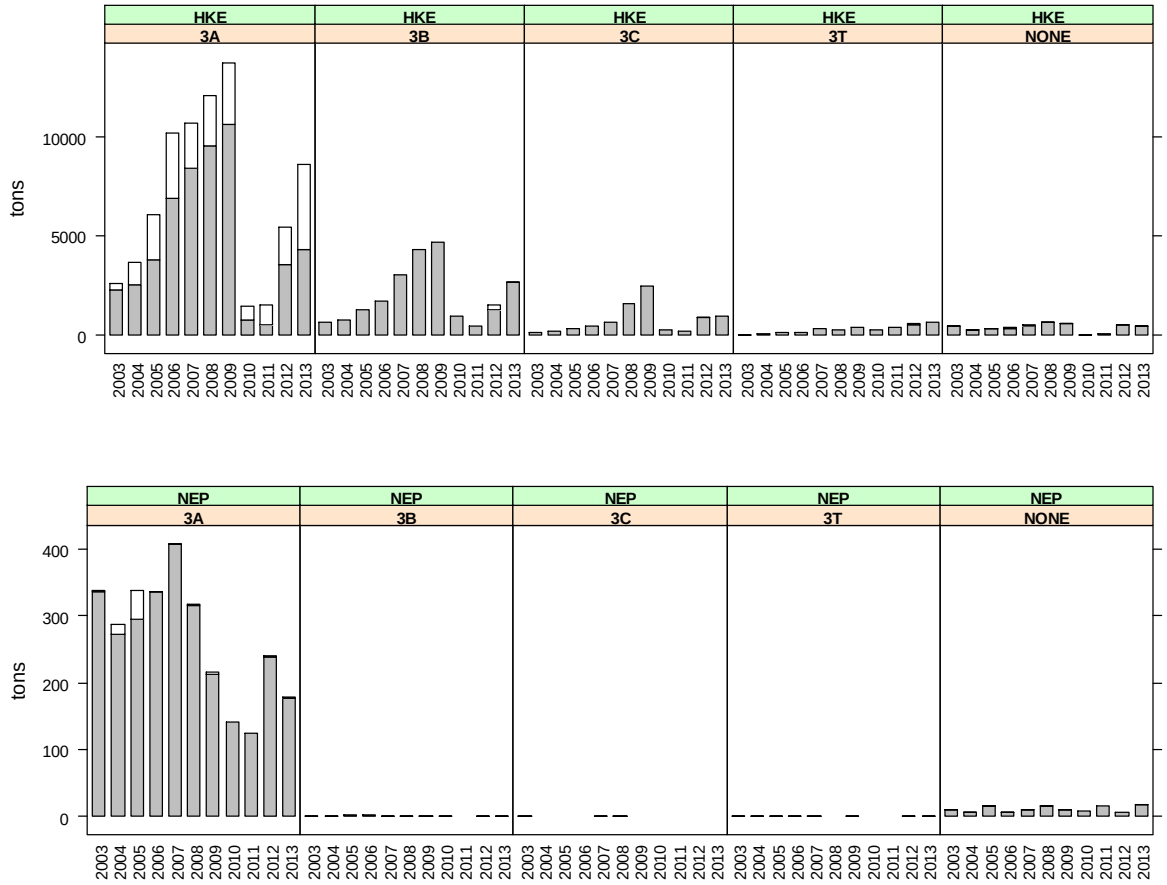


Figure 5.7.2.6 Hake and Norway lobster catches by gear for the years 2003-2013 (discards presented in white colour), all countries together. **Spanish data for 2010-2011 not available**.

The data given in the Table 5.7.2.1 form the basis of the Figure 5.7.2.6 displaying the relative catch compositions by species and gear for the years 2003-2013. The very low catches in 2010 and 2011 are related to the lack of information from Spanish fleets. Most hake catch comes from regulated trawlers (3A, Figure 5.7.2.5). Gillnets and longlines also catch large amounts of hake. For Norway lobster, the catches come almost exclusively from trawl.

5.7.3 ToR 1.c Catches (landings and discards) of species other than hake and Norway lobster, in particular anglerfish, in weight and numbers at age by Member State and fisheries

In 2014, other species landings and discards from 2013 were provided by Spain, Portugal and France. Spain also provided discard data for all species of the data call for 2003-2011[2009?]. In 2014, Portugal has revised the discard estimates for the period 2004-2012. Landings and discards time series in the EWG database included 2003-2013 data. France, Ireland, Holland, England and Scotland provided sporadic

landing information in previous years. Spain did not provide data for the years 2010 and 2011. At present, the procedure used to raise discards from haul to fleet level in the Portuguese trawl fisheries is adapted from Fernandes et al. (2010) (Jardim and Fernandes, 2013.). Using this procedure, species with low frequency of occurrence or abundance in discards (i.e., a large number of zeros in the data set) cannot be reliably estimated at fleet level (Jardim et al., 2011). The frequency of occurrence and abundance of most species in the discards of the Portuguese bottom trawl fleet was below 30%. Consequently, annual trawl discard volumes and length frequencies at fleet level were only estimated for some métiers, species and years. Where Portuguese discards were not reported, Spanish discard rates have been applied to Portuguese landings, providing new "Portuguese" discard data. The same applies for the Spanish data and the estimates of discards presented in this report.

Numbers at age were submitted by Spain in 2010 for anchovy, blue whiting and mackerel for the period 2003-2009 and 2012.

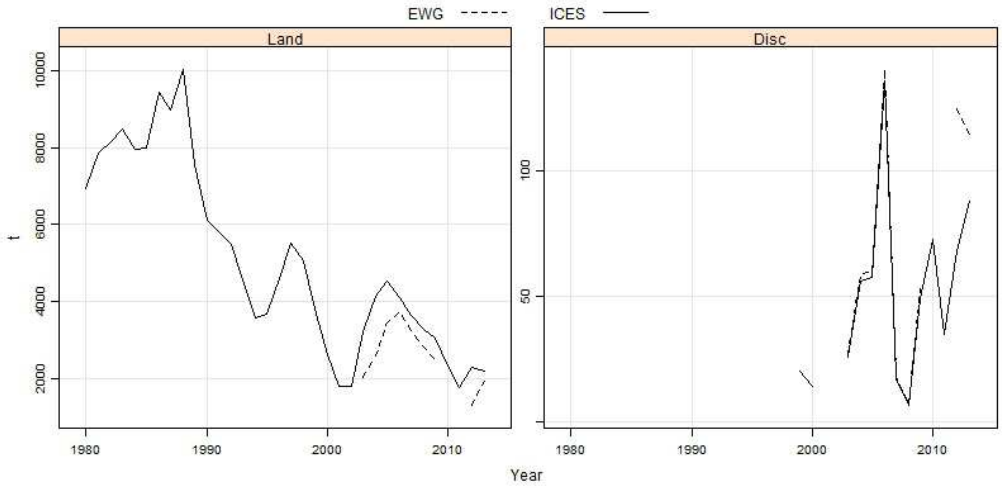


Figure 5.7.3.1. Comparison of the 8c & 9a anglerfish landings and discards (t) presented to ICES WGBIE 2014 (solid line) and STECF EWG (dashed line) database (this report) for all countries and gears (1980-2013). No Spanish data for the years 2010 and 2011 were reported to the EWG. Notice the different scale between graphs.

Anglerfish landings data provided to the EWG come from logbooks and show a decreasing trend since 2006. Anglerfish landings provided to the WGBIE come from different sources of data and show a similar trend (Figure 5.7.3.1).

Anglerfish discards correspond basically to Spain. The values and trends in the EWG and WGBIE are similar until 2011. The discard values provided to the EWG for the years 2012 and 2013 are 82% and 30% higher, respectively, than the values reported in the WGBIE report.

Table 5.7.3.1. Landings and discards (t) by species and derogation, 2003-2013. Regulated gear codes according to the CR No 41/2007: "3A" – bottom trawls of mesh size ≥ 32 mm, "3B" – gillnets of mesh size ≥ 60 mm, "3C" – bottom long-lines. Gear type "3T" denotes the non-regulated (effort) trammel gear with all mesh sizes, gear type "NONE" contains other gears and the gears not allocated. "--" means "not available", "0" means "0 tonnes". **No Spanish data for 2010 and 2011**.

					2004		2005		2006		2007		2008		2009		2010		2011		2012		2013	
annex	area	reg gear	specon	species	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D
IIB	8C-9A	3A	NONE	ANF	1,415	51	1,665	52	1,731	120	1,624	15	1,309	6	992	41	85	--	167	--	652	97	833	111
IIB	8C-9A	3A	IIB72AB	ANF	198	7	249	8	274	19	317	3	332	1	280	12	5	--	10	--	50	--	21	--
IIB	8C-9A	3B	NONE	ANF	234	--	449	--	599	--	409	--	394	--	411	--	4	--	11	--	210	26	644	--
IIB	8C-9A	3B	IIB72AB	ANF	280	--	506	--	527	--	365	--	392	--	303	--	6	--	3	--	3	--	3	--
IIB	8C-9A	3C	NONE	ANF	1	--	0	--	1	--	15	--	4	--	1	--	--	--	0	--	2	--	4	--
IIB	8C-9A	3C	IIB72AB	ANF	0	--	1	--	1	--	1	--	2	--	1	--	--	--	--	--	--	--	--	--
IIB	8C-9A	3T	NONE	ANF	182	--	213	--	184	--	241	--	180	--	234	--	85	--	112	--	293	--	302	--
IIB	8C-9A	NONE	NONE	ANF	258	1	360	1	434	2	279	0	216	0	255	1	4	--	1	--	91	1	106	1
IIB	8C-9A	3A	NONE	JAX	17,111	1,247	16,129	903	17,803	1,131	19,476	245	17,121	417	6,132	410	4,569	--	3,711	--	8,389	207	13,394	1,051
IIB	8C-9A	3A	IIB72AB	JAX	4,878	399	3,637	195	3,937	310	3,910	65	3,159	100	170	43	55	--	110	--	768	--	1,044	--
IIB	8C-9A	3B	NONE	JAX	50	--	64	--	63	--	222	--	425	--	388	--	140	--	116	--	404	--	934	7
IIB	8C-9A	3B	IIB72AB	JAX	87	--	76	--	103	--	156	--	208	--	168	--	18	--	14	--	20	--	16	--
IIB	8C-9A	3C	NONE	JAX	3	--	2	--	1	--	11	--	5	--	12	--	2	--	4	--	81	--	92	--
IIB	8C-9A	3C	IIB72AB	JAX	4	--	7	--	15	--	6	--	4	--	8	--	11	--	2	--	9	--	5	--
IIB	8C-9A	3T	NONE	JAX	9	--	30	--	48	--	206	--	133	--	247	--	107	--	186	--	314	--	367	--
IIB	8C-9A	NONE	NONE	JAX	15,228	10	13,481	11	12,783	8	12,573	2	19,389	5	17,684	3	30	--	62	--	12,555	17	21,210	124
IIB	8C-9A	3A	NONE	MAC	11,250	689	16,761	292	17,005	2,736	11,988	3,946	14,903	60	18,158	540	450	--	463	--	3,017	5,671	4,723	2,937
IIB	8C-9A	3A	IIB72AB	MAC	4,562	219	5,314	94	5,525	840	4,329	42	3,384	13	5,730	170	2	--	10	--	218	441	212	854
IIB	8C-9A	3B	NONE	MAC	74	--	59	--	37	--	35	--	82	--	53	--	2	--	4	--	61	--	191	4
IIB	8C-9A	3B	IIB72AB	MAC	38	--	155	--	53	--	37	--	77	--	55	--	1	--	2	--	0	--	--	--
IIB	8C-9A	3C	NONE	MAC	6	--	28	--	3	--	53	--	38	--	80	--	--	--	1	--	7,494	--	4,662	--
IIB	8C-9A	3C	IIB72AB	MAC	71	--	145	--	77	--	87	--	66	--	179	--	--	--	--	--	--	--	--	--
IIB	8C-9A	3T	NONE	MAC	30	--	30	--	19	--	42	--	59	--	68	--	18	--	14	--	51	--	8	--
IIB	8C-9A	NONE	NONE	MAC	12,987	20	20,793	5	25,833	28	40,726	2	37,101	1	64,517	16	281	--	30	--	8,290	--	5,133	303
IIB	8C-9A	3A	NONE	RAJ	30	285	26	28	48	250	86	165	127	37	291	138	236	--	233	--	237	--	765	165
IIB	8C-9A	3A	IIB72AB	RAJ	1	14	4	4	5	26	21	41	19	6	15	7	9	--	16	--	37	--	37	--
IIB	8C-9A	3B	NONE	RAJ	5	--	9	--	2	--	10	--	3	--	7	--	6	--	3	--	1	--	63	--
IIB	8C-9A	3B	IIB72AB	RAJ	9	--	10	--	7	--	16	--	8	--	12	--	4	--	2	--	1	--	2	--
IIB	8C-9A	3C	NONE	RAJ	3	--	1	--	2	--	5	--	4	--	4	--	2	--	2	--	4	--	41	--
IIB	8C-9A	3C	IIB72AB	RAJ	11	--	10	--	12	--	17	--	17	--	36	--	6	--	9	--	8	--	15	--
IIB	8C-9A	3T	NONE	RAJ	69	--	80	--	102	--	193	--	165	--	240	--	230	--	215	--	162	--	346	--
IIB	8C-9A	NONE	NONE	RAJ	16	24	29	0	15	1	17	0	26	0	42	1	8	--	8	--	3	--	70	2
IIB	8C-9A	3A	NONE	WHB	20,544	6,554	19,378	2,346	16,535	6,952	15,783	2,644	16,266	1,640	20,400	1,747	1,153	793	399	437	7,389	2,379	16,061	5,576
IIB	8C-9A	3A	IIB72AB	WHB	5,079	959	5,743	779	4,359	955	4,316	749	4,695	511	5,085	387	1	1	68	74	152	51	239	104
IIB	8C-9A	3B	NONE	WHB	1	--	2	--	1	--	1	--	2	--	0	--	--	--	--	--	0	--	25	0
IIB	8C-9A	3B	IIB72AB	WHB	1	--	1	--	0	--	1	--	1	--	1	--	--	--	--	--	--	--	--	--
IIB	8C-9A	3C	NONE	WHB	18	--	0	--	3	--	9	--	4	--	9	--	0	--	0	--	19	--	17	--
IIB	8C-9A	3C	IIB72AB	WHB	17	--	18	--	14	--	9	--	10	--	15	--	--	--	--	--	4	--	1	--
IIB	8C-9A	3T	NONE	WHB	0	--	0	--	0	--	1	--	0	--	0	--	--	--	--	--	0	--	0	--
IIB	8C-9A	NONE	NONE	WHB	108	12	89	6	215	36	521	60	351	32	363	24	--	--	--	--	425	1	64	27

The contributions of the individual derogations to the overall landings can be taken from Tables 5.7.3.1. For brevity, landings and discards in weight by derogation are restricted to anglerfish (ANF), horse mackerels (JAX), mackerel (MAC), rays (RAJ) and blue whiting (WHB). Note that ANF, JAX and RAJ include more than one species.

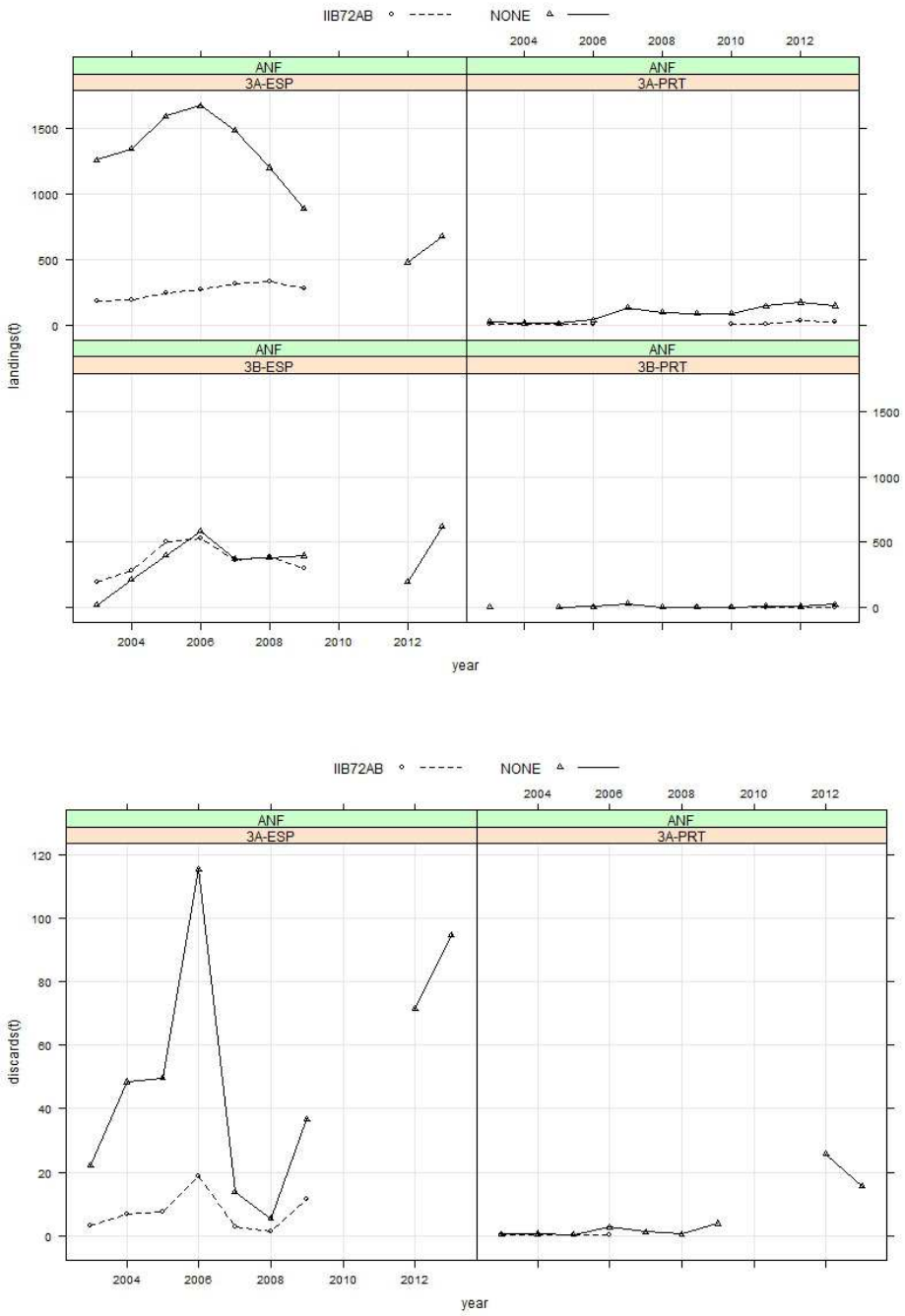


Fig. 5.7.3.2. Trends in landings (top) and discards (bottom) of anglerfish by Member State, regulated gear and specon. All the Spanish vessels were under the effort regime (NONE) since 2012.

From these species, special attention is given to anglerfishes (Figures 5.7.3.1 and 5.7.3.2). However, the group anglerfish includes two species, *Lophius piscatorius* and *L. budegassa*, which are in different exploitation status and have different areas of distribution. Landings are

decreasing in the Spanish regulated trawl and gillnet and are stable in the other cases (Fig. 5.7.3.2).

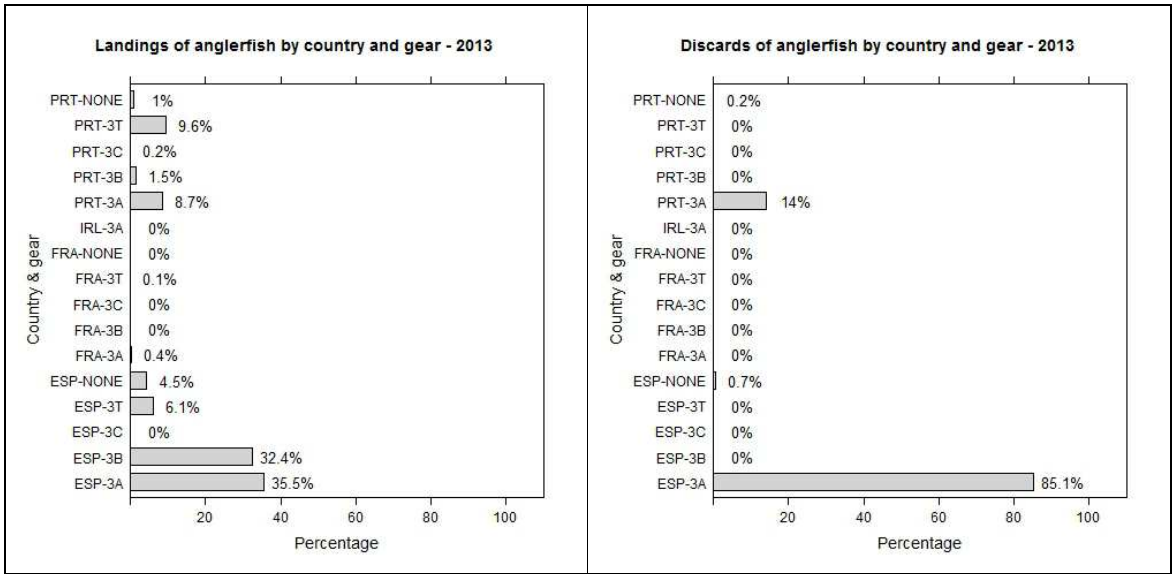


Figure 5.7.3.3. Anglerfish landings (left) and discards (right) by fleet in 8c & 9a in 2013 (ESP: Spain, PRT: Portugal, FRA: France).

Figure 5.7.3.3 shows landings and discards of anglerfish in 2013 by country and fleet. The Spanish regulated trawlers (3A) landed 36% of anglerfish, followed by Spanish regulated gillnets (3B), 32%. From the Portuguese fleets, the non-regulated gear Trammels, shows the highest percentage across Portuguese fleet for the landings of anglerfish (10%). From the regulated gears, trawlers are responsible for 9% landings of anglerfish. All the regulated Spanish gears were under the normal effort regime in 2013. 85% of anglerfish discards is carried out by the Spanish regulated trawlers and 14% by the Portuguese regulated trawls.

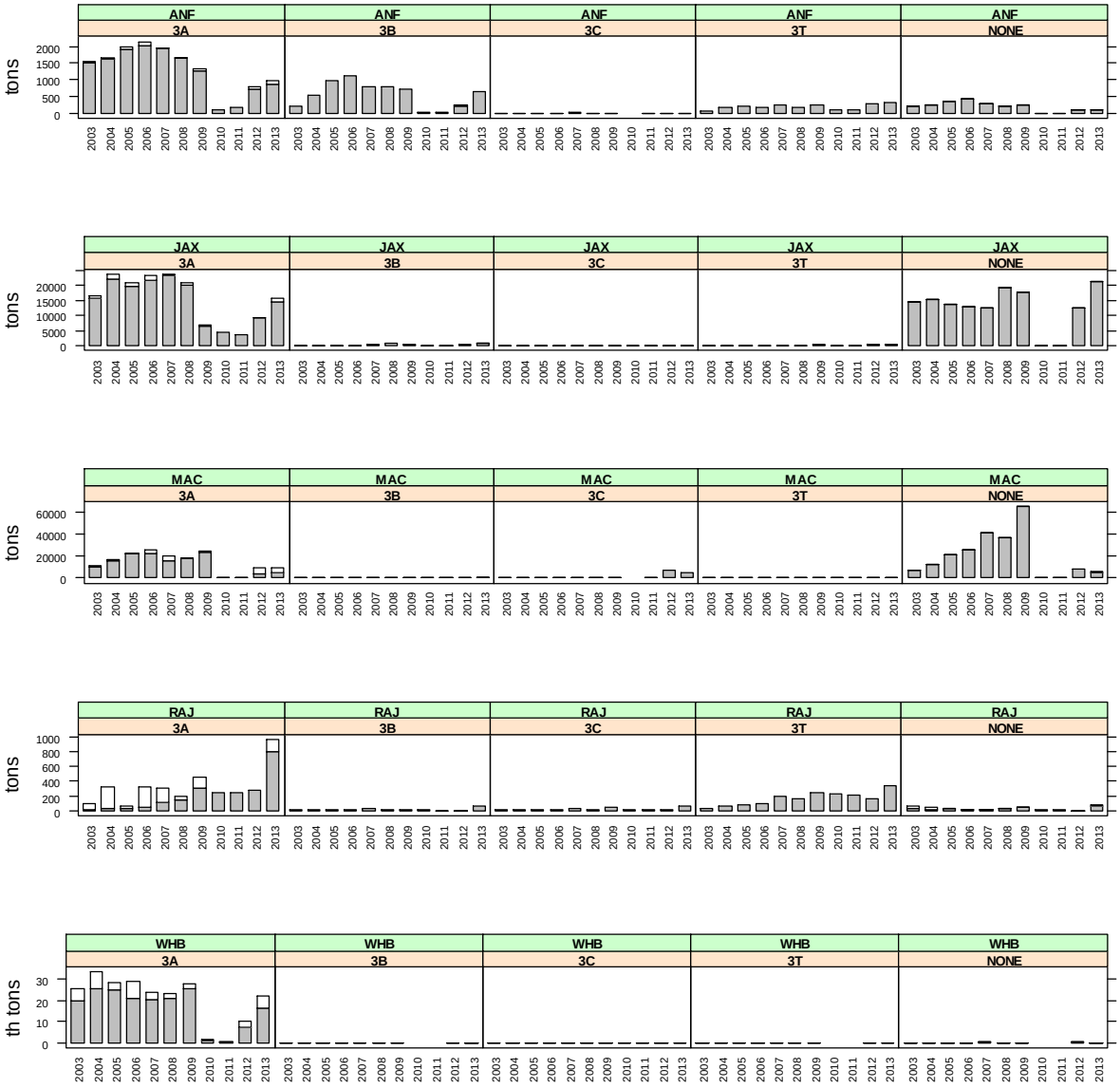


Figure 5.7.3.4. Catches by species and gear for the years 2003-2013 (discards presented in white colour). **Spanish data for 2010-2011 not available.** (ANF = Anglerfishes, JAX = *Trachurus spp.*, MAC = Mackerel, RAJ = Rays and WHB = Blue Whiting).

The data given in the Table 5.7.3.1 form the basis of the Figure 5.7.3.4 displaying the catches of anglerfish, horse mackerels, mackerel, rays and blue whiting by gear for the years 2003-2013. The lack of white bars further indicates that discard data were not provided or there were no discards. The very low catches in 2010 and 2011 are related to the lack of information from Spanish fleets.

Regulated trawlers (3A) harvest high quantities of horse mackerels, mackerel and blue whiting (Figure 5.7.3.4). The main species in unregulated gears (NONE) are mackerel and horse mackerels.

Figure 5.7.3.5 shows the species composition of landings of the regulated gears and the unregulated 3T. Small pelagic species like horse mackerel, blue whiting and mackerel represent a high percentage of landings in weight.

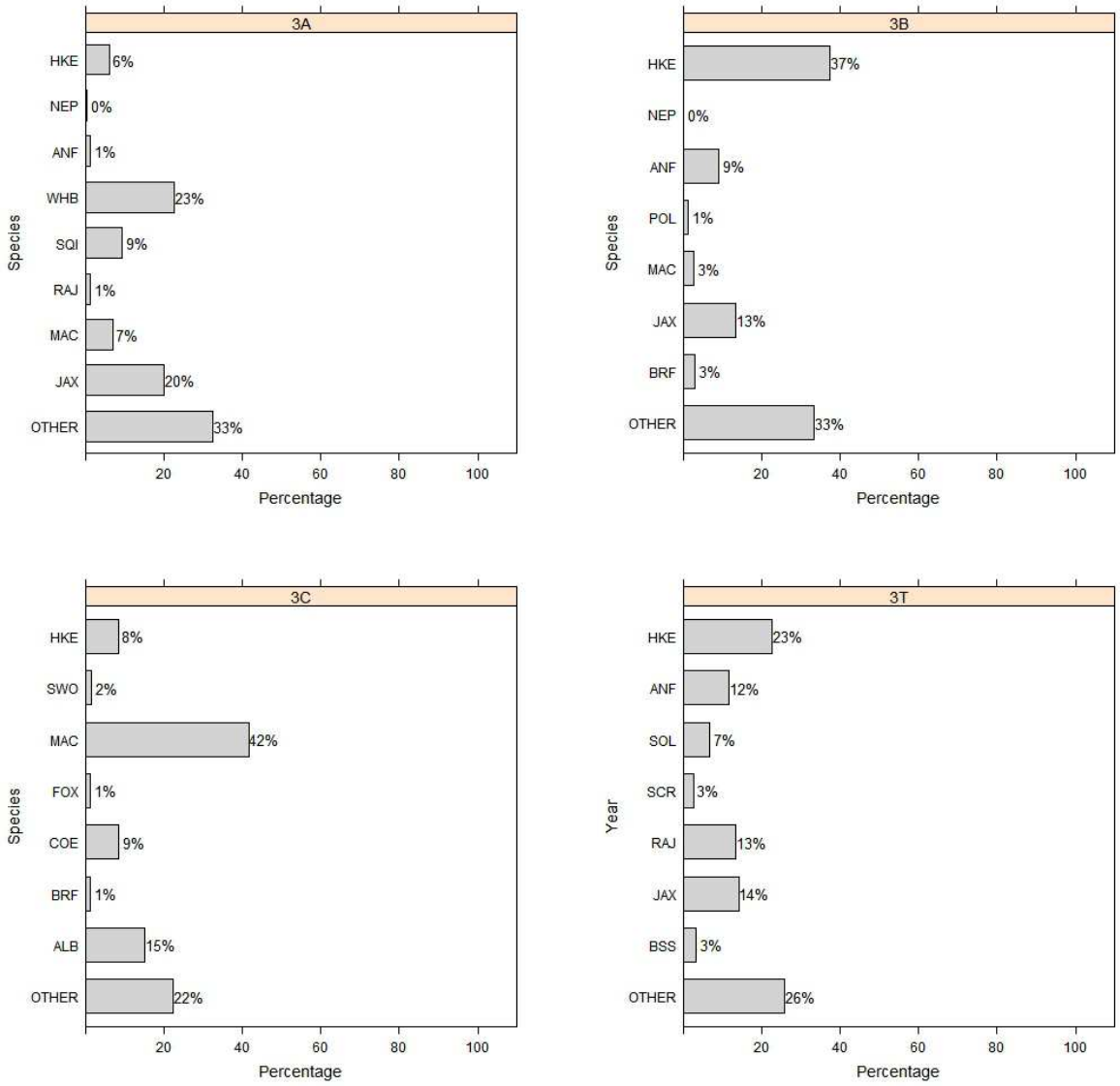


Fig. 5.7.3.5. Landings species composition in regulated gears (3A- otter, 3B- gillnet and 3C-longline) and 3T (trammel) for the year 2013.

Fig. 5.7.3.5 shows the high importance of the pelagic species (horse mackerel, mackerel and blue whiting) in the 8c & 9a regulated gears landings (around 50% in trawlers, 16% in gillnet and 42% in longline). Figure 5.7.3.6 shows that regulated gears obtain representative parts of the total landings of these species.

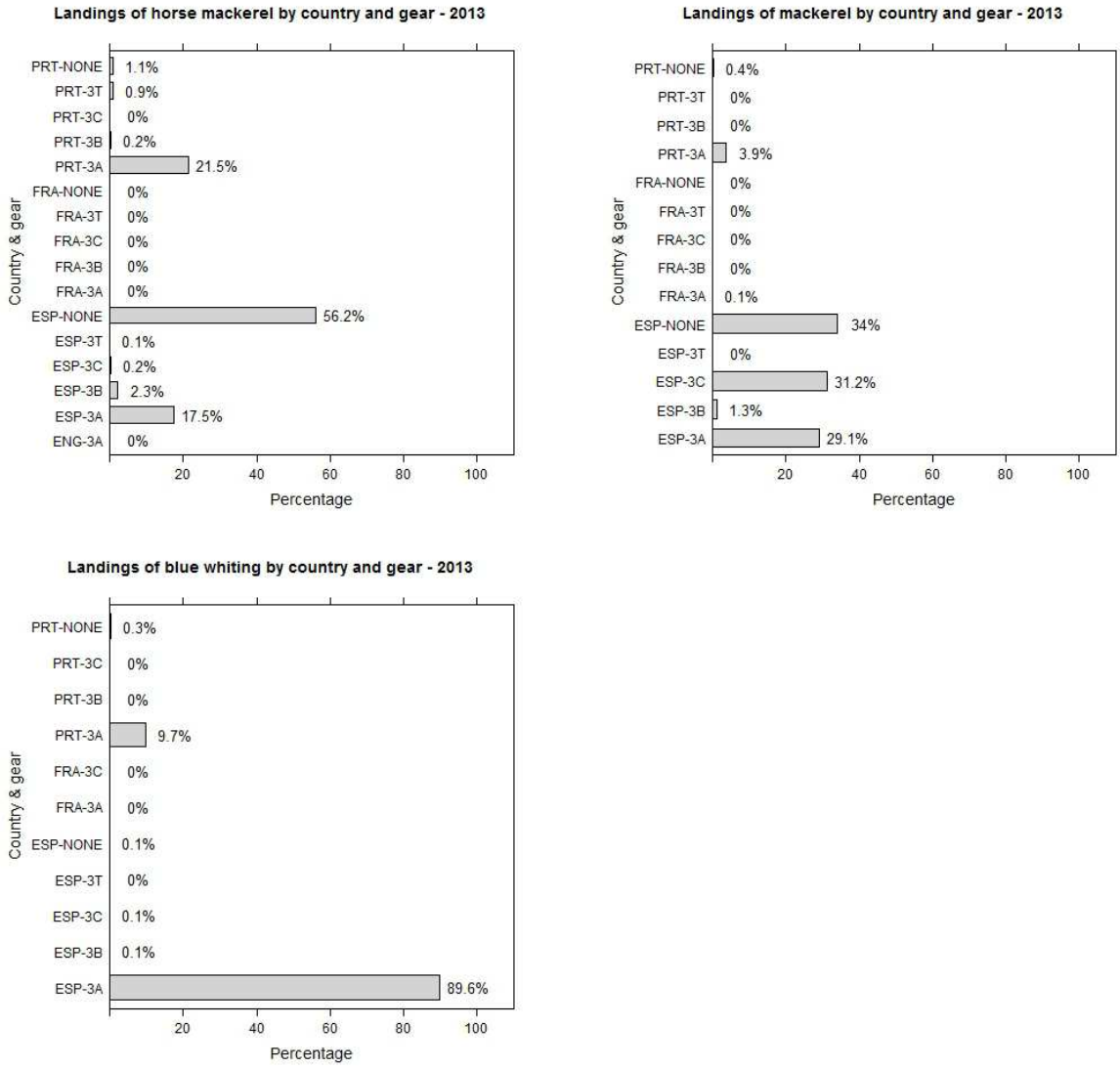


Figure 5.7.3.6. Landings (percentage of the total) from fishing areas 8c & 9a, of horse mackerel, mackerel and blue whiting in 2013, by country and fleet (ENG: England, ESP: Spain, FRA: France, PRT: Portugal)

5.7.4 ToR 1.d CPUE and LPUE of hake, Norway lobster and anglerfish by fisheries

Hake LPUE had a high increase between 2003 and 2009 (Figure 5.7.4.1), a fact corroborated by the ICES WGBIE information (Figure 5.7.4.2). The assessment performed by WGBIE in May 2014 (ICES, 2014) shows that hake biomass has increased since 2006 (Figure 5.7.8.1).

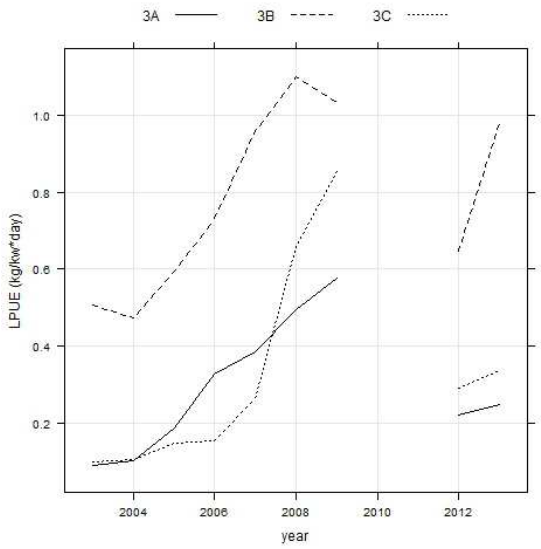


Fig. 5.7.4.1. Hake LPUE for regulated gears for all countries from 2003 to 2013. LPUE points for the years 2010 and 2011 were omitted due to lack of Spanish data for these years.

It must be taken into account that 8c & 9a regulated trawlers ("3A") include 7 Spanish and Portuguese metiers, with different gears and mesh sizes, some of them directed to hake and others directed to other species (crustaceans, small pelagic). The regulated gillnets ("3B") include 6 Spanish and Portuguese metiers and mesh sizes and directed at distinct target species. The regulated longlines ("3C") include 3 Spanish and Portuguese metiers (Tables 5.7.1 and 5.7.2). These results, therefore, show the general trend for all countries combined.

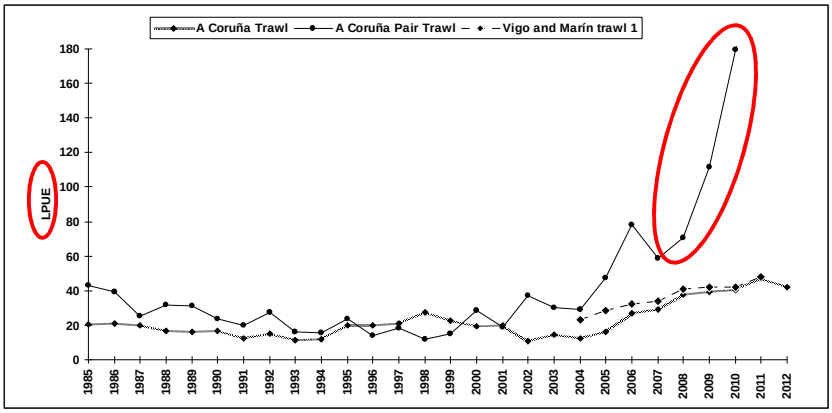


Fig. 5.7.4.2. Hake LPUE from 1985 to 2012 from the 2013 ICES WGHMM. This information was not updated in WGBIE 2014.

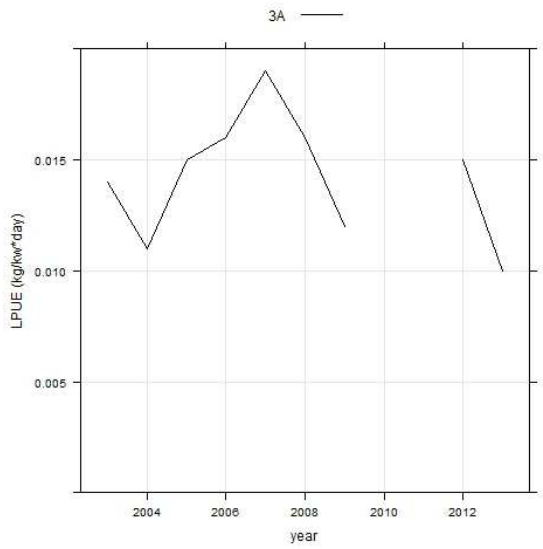


Fig. 5.7.4.3. *Nephrops* CPUE for otter trawl with mesh size over 32 mm (gear "3A") for all countries from 2003 to 2009 and 2012. CPUE points for the period 2010-2011 are omitted because Spanish data for 2010 and 2011 are not available. Management should be carried out at FU level. In 8c & 9a there are 7 different FUs. 2012 3A NEP landings were 238 t.

Nephrops data in 8c-9a are mostly from Functional Units 28 and 29 (90%, 2014 ICES WGBIE), in SW and S Portugal (9a). The remaining FUs from Cantabrian Sea (8c) and 9a North are almost depleted. The catches from FU 30 (Gulf of Cadiz) also showed a great decrease in 2013. *Nephrops* is caught as by catch from other fisheries in very low quantities.

Figure 5.7.4.4 compares the standardized *Nephrops* CPUE presented in ICES WGBIE for FUs 28 and 29 (ICES, 2014) and the LPUE derived from the data presented to this EWG, considering only the Portuguese catches and effort, that are almost the total in these FUs. In the case of this species, discards are negligible and catches are considered equal to landings. The overall trend is decreasing in the period 2005-2011 in both cases, with an increase after 2011 in WGBIE standardized CPUE. The EWG LPUE was estimated only for Portuguese bottom trawl (3A), but with demersal and crustacean trawls together. The standardized CPUE presented in WGBIE 2014 was estimated only for Portuguese crustacean trawl fleet and using only trips targeting *Nephrops*.

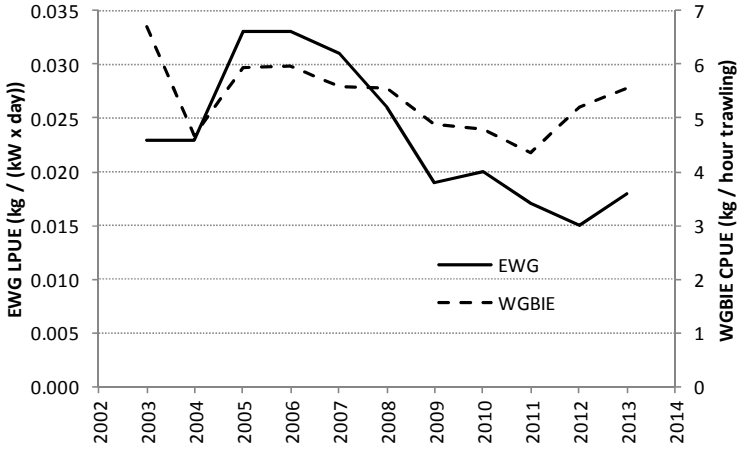


Figure 5.7.4.4 Comparison of *Nephrops* CPUE trends in Functional Units 28 and 29 (SW and S Portugal, within area 9a) using only Portuguese catch and effort data (EWG: CPUE estimated with this EWG data [demersal and crustacean trawl together]; WGHMM: standardized CPUE estimates presented at WGHMM [only crustacean trawl and trips directed at *Nephrops*]).

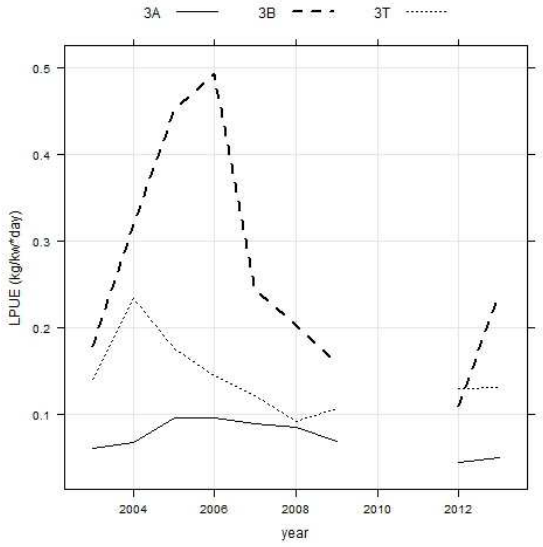


Fig. 5.7.4.5. Anglerfish LPUE for the most important regulated gears (3A and 3B) and for trammel nets (3T) for all countries in 2003-2013. LPUE points for the years 2010 and 2011 were omitted due to lack of Spanish data for these years.

Figure 5.7.4.5 shows the anglerfish LPUE for the most important regulated gears and trammel nets. Total anglerfish landings were 854 t for 3A, 647 for 3B, 4 for 3C and 302 for 3T. Considering the low level of catches, the LPUE series for anglerfish with 3C is not presented. As already stated, note that there are two species included in the species group anglerfish, *Lophius piscatorius* and *L. budegassa*, in different exploitation status and with different areas of distribution..

5.7.5 Information on small boats (<10m by area)

Portugal has provided data for vessels below 10 m operating in areas 8c-9a, though specifying neither gear nor fishery. These vessels operate, in general, with several gears and do not fill logbooks. Data on catch and effort for these vessels are based on landings records. Fishing area information is not available.

Spain provided some information for this segment for the years 2012 and 2013. This segment of the fleet is not represented in logbooks and data are collected from sales notes,. Sales notes only provide information about name of the vessel, port of landing, sold weight by species, price by kg and euros by species. It is not possible to know either gear or fishing area.

France also provided some data for these vessels for the years 2010-2012.

Since 2003, Portugal has carried out a specific sampling plan to collect data on the activity of the small scale fleet (<10m vessels) operating in continental waters. The data are collected with a stratified random strategy by interviews to skippers, and provides information about catches by species and effort. This sampling plan is under the scope of Reg. (EC) 1639/2001 and the results are presented on the DCF annual reports requested by DGMARE.

5.7.6 ToR 2 Remarks on quality of catches and discard estimates

Discard estimates were provided for trawl (and Spanish gillnets since 2008) for all-time series (2003-2009; 2012-2013) and species for Spain and from Portugal for otter trawl for the period 2004-2011for all species. Discard quality index was A (high representativeness) for hake, *Nephrops*, blue whiting and monkfish in all cases. Although some discards were reported in 2004-2005, *Nephrops* discards are considered zero or negligible. This species has a high market value and almost no Nephrops below the minimum landing size is caught.

For more detailed information on quality of catches and discard estimates, see the section 4 “Data Quality” for each country.

A thorough analysis on the EWG estimates shows that the data processing algorithm still needs to be fine-tuned in order to take into account the fishery provided by the member state when the regulated gear aggregates more than one specific fishery. That is the case for example of the regulated gear 3A, i.e., regulated trawls, which aggregates trawls and demersal seines, with mesh sizes ranging from 32 to 120 mm.

The group considers the results of these estimates shall be carefully read and recommends the revision of the estimation process for the future Working Group. (see section 4.4).

5.7.7 ToR 3 Trend in calculated maximum effort of regulated gears and uptake by Member State

No adequate data are available to address this ToR. The allowed activity by vessel for the period 2003-2013 is presented in Table 5.7.3. Although the field “Number of Vessels” in the effort database has been filled, the data on the fishing activity is incomplete. Also, the vessels included can operate with different

area/fishery/gear/mesh size combinations and therefore, the same vessels may be included in different records. Spain did not present any data on the fishing activity in 2000-2009.

5.7.8 ToR 4 Correlation between partial hake mortality and fishing effort by Member State and fisheries

The STECF EWG 14-13 presents hake catchability (Fig. 5.7.8.2), partial fishing mortalities vs effort (Figure 5.7.8.3) and partial F (Figure 5.7.8.4) by major fleets and Member States using the fishing mortality and removals (catches) of the southern stock of hake (ICES Divisions VIIIc and IXa) estimated by 2014 ICES WGBIE (Table 5.7.8.1 and Figure 5.7.8.1) and the landings and discards volumes presented to the STECF EWG 14-13 (present meeting) (Table 5.7.2.1 and Figure 5.7.2.4). The full list of all fleets can be downloaded from the EWG's web page: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1413 .

Table 5.7.8.1. VIIIc and IXa hake stock. Fishing mortality and removals (catches) by year (2003-2013) from 2014 ICES WGBIE.

Year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Removals	8,205	7,855	10,311	14,078	17,436	19,106	22,175	16,948	19,010	16,523	16,102
F	0.824	0.716	0.754	0.87	0.914	0.902	0.975	0.737	0.802	0.701	0.588

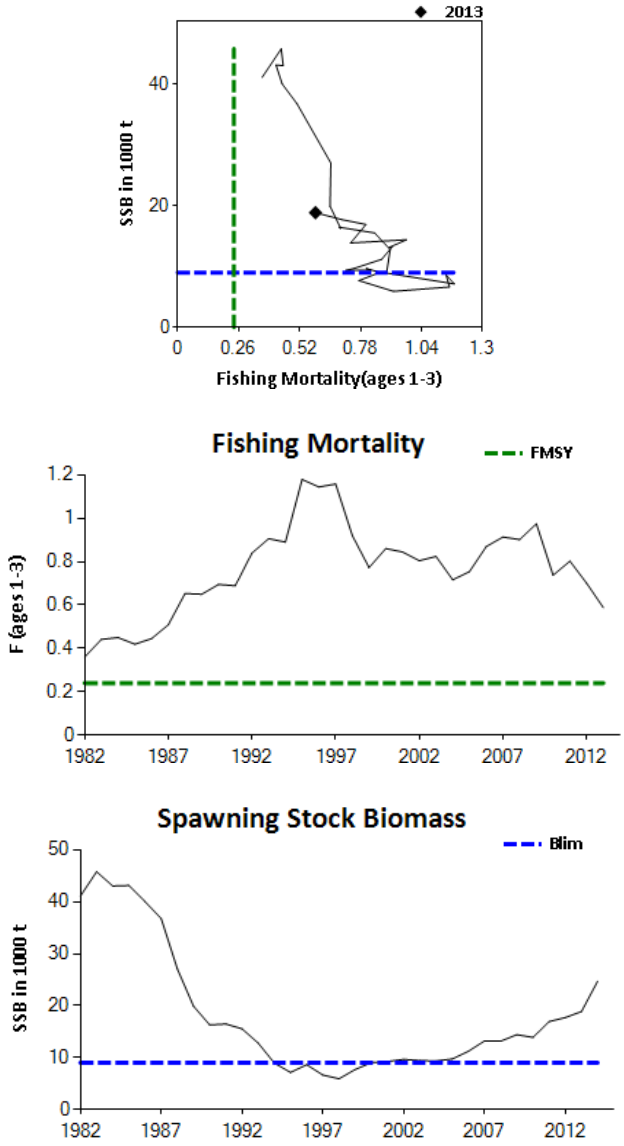


Fig. 5.7.8.1. Hake in Divisions VIIIc and IXa. SSB/F (top), F (middle) and SSB (bottom) for the time-series used in the ICES WG assessment (2014 ICES advice).

The recovery plan was agreed by the EU in 2005 (EC Reg. No. 2166/2005, Appendix 7.4.7.1). The aim of the plan is to rebuild the stock to safe biological limits, set as a spawning-stock biomass above 35 000 tonnes by 2016, and to reduce fishing mortality to 0.27. The main elements of the plan are a 10% annual reduction in F with a 15% constraint on TAC change between years. ICES has not evaluated the plan. The trends in fishing effort in units of kWdays at sea of the relevant fleets are also presented in Table 5.7.1.1 and Fig. 5.7.1.3.

Table 5.7.8.2. VIIIc and IX hake (catches). The left part of the table lists estimated F trajectories from the management plan and the 2014 ICES hake assessment, as well as partial Fs for **catches** of fisheries using regulated gears. The right part of the table lists the respective trends in fishing effort (kW days at sea). The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs from total catches of all effort regulated gears to the overall F estimate of the stock.

From 2006 F reductions of 10 percent from previous year then from 2010 F reductions of 15% from previous year until F<=0.3 (Fmsy=0.24)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
F plan				0.87	0.783	0.705	0.634	0.571	0.485	0.412	0.35
reduction F plan					-0.1	-0.1	-0.1	-0.1	-0.15	-0.15	-0.15
F estimated	0.824	0.716	0.754	0.87	0.914	0.902	0.975	0.737	0.802	0.701	0.588
F reduction estimated (rel. previous year)					0.05	-0.01	0.08	-0.24	0.09	-0.13	-0.16
F reduction estimated (ref yr=2006)					0.05	0.04	0.12	-0.15	-0.08	-0.19	-0.32

Fpar				**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**
ESP	3A	NONE	catches	0.235	0.228	0.271	0.548	0.461	0.474	0.461			0.172	0.268
ESP	3B	NONE	catches	0.060	0.065	0.080	0.088	0.122	0.154	0.164			0.046	0.076
ESP	3C	NONE	catches	0.012	0.013	0.017	0.020	0.030	0.066	0.097			0.032	0.028
ESP	3T	NONE	catches	0.001	0.001	0.001	0.002	0.002	0.005	0.007			0.003	0.003
FRA	3A	NONE	catches	0.003	0.003	0.002	0.006	0.003	0.003	0.003	0.002	0.002	0.001	0.000
FRA	3B	NONE	catches	0.000	0.003	0.007	0.005	0.007	0.016	0.015	0.011	0.005	0.010	0.010
FRA	3C	NONE	catches	0.001		0.000		0.000	0.005	0.005	0.004	0.002	0.002	0.003
FRA	3T	NONE	catches	0.000			0.000		0.000	0.000	0.000	0.000	0.000	0.000
IRL	3A	NONE	catches	0.000										
PRT	3A	NONE	catches	0.022	0.102	0.169	0.074	0.095	0.091	0.140	0.060	0.061	0.056	0.045
PRT	3B	NONE	catches	0.003	0.001	0.005	0.010	0.029	0.031	0.025	0.030	0.013	0.009	0.011
PRT	3C	NONE	catches	0.000	0.000	0.003	0.004	0.002	0.002	0.005	0.005	0.004	0.003	0.003
PRT	3T	NONE	catches	0.000	0.000	0.004	0.004	0.012	0.006	0.009	0.010	0.015	0.020	0.018
SCO	3B	NONE	catches											0.000
Sum				0.338	0.417	0.560	0.762	0.764	0.855	0.930	0.122	0.101	0.353	0.466
(Sum of Fpars)/estimated F				0.410	0.582	0.743	0.876	0.836	0.948	0.954	0.165	0.126	0.504	0.793

Effort estimated	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**
	28,056	28,023	25,153	27,012	29,257	27,447	27,902	10,357	10,069	23,182	24,970

EFFORT 1000 kW days at sea	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**
	17,278	17,397	13,750	13,894	12,361	10,454	10,363			8,113	10,269
	1,114	1,549	1,821	1,832	2,067	2,526	3,148			1,475	2,159
	966	1,076	1,232	1,586	1,369	1,419	1,828			2,481	2,262
	439	737	955	742	717	918	933			868	853
	121	110	198	345	274	316	316	48	72	77	27
	6	28	98	69	129	297	297	114	62	83	51
	3	4	2	1	1	40	40	84	46	56	56
	4	1		2		3	3	5	4	7	6
	4			2				0			
	7,537	6,732	6,035	6,698	9,127	8,496	7,695	6,804	6,980	7,857	6,909
	124	35	196	347	969	1,063	1,040	929	465	405	494
	385	315	612	965	991	889	976	935	1,010	355	438
	75	40	254	526	1,253	1,027	1,264	1,438	1,430	1,404	1,446
				3							
	28,056	28,023	25,153	27,012	29,257	27,447	27,902	10,357	10,069	23,182	24,970

Table 5.7.8.3. VIIIc and IX hake (landings). The left part of the table lists estimated F trajectories from the management plan and the 2014 ICES hake assessment, as well as partial Fs for **landings** of fisheries using regulated gears. The right part of the table lists the respective trends in fishing effort (kW days at sea). The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs from landings of all effort regulated gears to the overall F estimate of the stock.

From 2006 F reductions of 10 percent from previous year then from 2010 F reductions of 15% from previous year until F<=0.3 (Fmsy=0.24)																										
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013			**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**
F plan							0.870	0.783	0.705	0.634	0.571	0.485	0.412	0.350													
reduction F plan								-0.1	-0.1	-0.1	-0.1	-0.15	-0.15	-0.15													
F estimated				0.824	0.716	0.754	0.870	0.914	0.902	0.975	0.737	0.802	0.701	0.588		**Effort estimated**	28,056	28,023	25,153	27,012	29,257	27,447	27,902	10,357	10,069	23,182	24,970
								0.05	-0.01	0.08	-0.24	0.09	-0.13	-0.16													
								0.05	0.04	0.12	-0.15	-0.08	-0.19	-0.32													
																EFFORT											
Fpar				**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**		**1000 kW days at sea**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**
ESP	3A	NONE	landings	0.203	0.208	0.249	0.387	0.400	0.407	0.424			0.114	0.125			17,278	17,397	13,750	13,894	12,361	10,454	10,363			8,113	10,269
ESP	3B	NONE	landings	0.060	0.065	0.080	0.088	0.122	0.154	0.164			0.037	0.075			1,114	1,549	1,821	1,832	2,067	2,526	3,148			1,475	2,159
ESP	3C	NONE	landings	0.012	0.013	0.017	0.020	0.030	0.066	0.097			0.031	0.028			966	1,076	1,232	1,586	1,369	1,419	1,828			2,481	2,262
ESP	3T	NONE	landings	0.001	0.001	0.001	0.002	0.002	0.005	0.007			0.003	0.003			439	737	955	742	717	918	933			868	853
FRA	3A	NONE	landings	0.003	0.002	0.001	0.003	0.002	0.002	0.002	0.001	0.001	0.001	0.000			121	110	198	345	274	316	316	48	72	77	27
FRA	3B	NONE	landings	0.000	0.003	0.007	0.005	0.007	0.016	0.015	0.011	0.005	0.009	0.010			6	28	98	69	129	297	297	114	62	83	51
FRA	3C	NONE	landings	0.001		0.000		0.000	0.005	0.005	0.004	0.002	0.002	0.003			3	4	2	1	1	40	40	84	46	56	56
FRA	3T	NONE	landings	0.000			0.000		0.000	0.000	0.000	0.000	0.000	0.000			4	1		2		3	3	5	4	7	6
IRL	3A	NONE	landings	0.000													4			2				0			
PRT	3A	NONE	landings	0.019	0.018	0.025	0.035	0.037	0.042	0.040	0.033	0.021	0.035	0.032			7,537	6,732	6,035	6,698	9,127	8,496	7,695	6,804	6,980	7,857	6,909
PRT	3B	NONE	landings	0.003	0.001	0.005	0.010	0.029	0.031	0.025	0.030	0.013	0.008	0.011			124	35	196	347	969	1,063	1,040	929	465	405	494
PRT	3C	NONE	landings	0.000	0.000	0.003	0.004	0.002	0.002	0.005	0.005	0.004	0.003	0.003			385	315	612	965	991	889	976	935	1,010	355	438
PRT	3T	NONE	landings	0.000	0.000	0.004	0.004	0.012	0.006	0.009	0.010	0.015	0.018	0.018			75	40	254	526	1,253	1,027	1,264	1,438	1,430	1,404	1,446
SCO	3B	NONE	landings											0.000						3							
Sum				0.302	0.312	0.393	0.558	0.644	0.737	0.793	0.093	0.060	0.261	0.310			28,056	28,023	25,153	27,012	29,257	27,447	27,902	10,357	10,069	23,182	24,970
(Sum of Fpars)/estimated F				0.367	0.436	0.522	0.642	0.705	0.818	0.813	0.126	0.075	0.372	0.527													

Table 5.7.8.4. VIIIc and IX hake (discards). The left part of the table lists estimated F trajectories from the management plan and the 2014 ICES hake assessment, as well as partial Fs for **discards** of fisheries using regulated gears. The right part of the table lists the respective trends in fishing effort (kW days at sea). The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs from discards of all effort regulated gears to the overall F estimate of the stock.

From 2006 F reductions of 10 percent from previous year then from 2010 F reductions of 15% from previous year until F<=0.3 (Fmsy=0.24)																										
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013			**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**
F plan							0.87	0.783	0.705	0.634	0.571	0.485	0.412	0.35													
reduction F plan								-0.1	-0.1	-0.1	-0.1	-0.15	-0.15	-0.15													
F estimated				0.824	0.716	0.754	0.87	0.914	0.902	0.975	0.737	0.802	0.701	0.588		**Effort estimated**	28,056	28,023	25,153	27,012	29,257	27,447	27,902	10,357	10,069	23,182	24,970
								0.05	-0.01	0.08	-0.24	0.09	-0.13	-0.16													
Fpar																**EFFORT**											
Fpar				**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**		**kW days at sea**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**
ESP	3A	NONE	discards	0.032	0.020	0.021	0.162	0.061	0.067	0.037			0.058	0.143			17,278	17,397	13,750	13,894	12,361	10,454	10,363			8,113	10,269
ESP	3B	NONE	discards	0.000	0.000	0.000	0.000	0.000	0.000	0.000			0.009	0.001			1,114	1,549	1,821	1,832	2,067	2,526	3,148			1,475	2,159
ESP	3C	NONE	discards	0.000	0.000	0.000	0.000	0.000	0.000	0.000			0.001	0.000			966	1,076	1,232	1,586	1,369	1,419	1,828			2,481	2,262
ESP	3T	NONE	discards	0.000	0.000	0.000	0.000	0.000	0.000	0.000			0.000	0.000			439	737	955	742	717	918	933			868	853
FRA	3A	NONE	discards	0.000	0.001	0.001	0.003	0.001	0.001	0.001	0.001	0.001	0.000	0.000			121	110	198	345	274	316	316	48	72	77	27
FRA	3B	NONE	discards	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000			6	28	98	69	129	297	297	114	62	83	51
FRA	3C	NONE	discards	0.000		0.000		0.000	0.000	0.000	0.000	0.000	0.000	0.000			3	4	2	1	1	40	40	84	46	56	56
FRA	3T	NONE	discards	0.000			0.000		0.000	0.000	0.000	0.000	0.000	0.000			4	1		2		3	3	5	4	7	6
IRL	3A	NONE	discards	0.000													4			2				0			
PRT	3A	NONE	discards	0.003	0.084	0.145	0.039	0.058	0.050	0.100	0.028	0.040	0.021	0.012			7,537	6,732	6,035	6,698	9,127	8,496	7,695	6,804	6,980	7,857	6,909
PRT	3B	NONE	discards	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000			124	35	196	347	969	1,063	1,040	929	465	405	494
PRT	3C	NONE	discards	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			385	315	612	965	991	889	976	935	1,010	355	438
PRT	3T	NONE	discards	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000			75	40	254	526	1,253	1,027	1,264	1,438	1,430	1,404	1,446
SCO	3B	NONE	discards											0.000						3							
Sum				0.036	0.105	0.167	0.204	0.119	0.118	0.138	0.029	0.041	0.092	0.156			28,056	28,023	25,153	27,012	29,257	27,447	27,902	10,357	10,069	23,182	24,970
(Sum of Fpars)/estimated F				0.043	0.147	0.221	0.234	0.131	0.130	0.141	0.039	0.051	0.132	0.266													

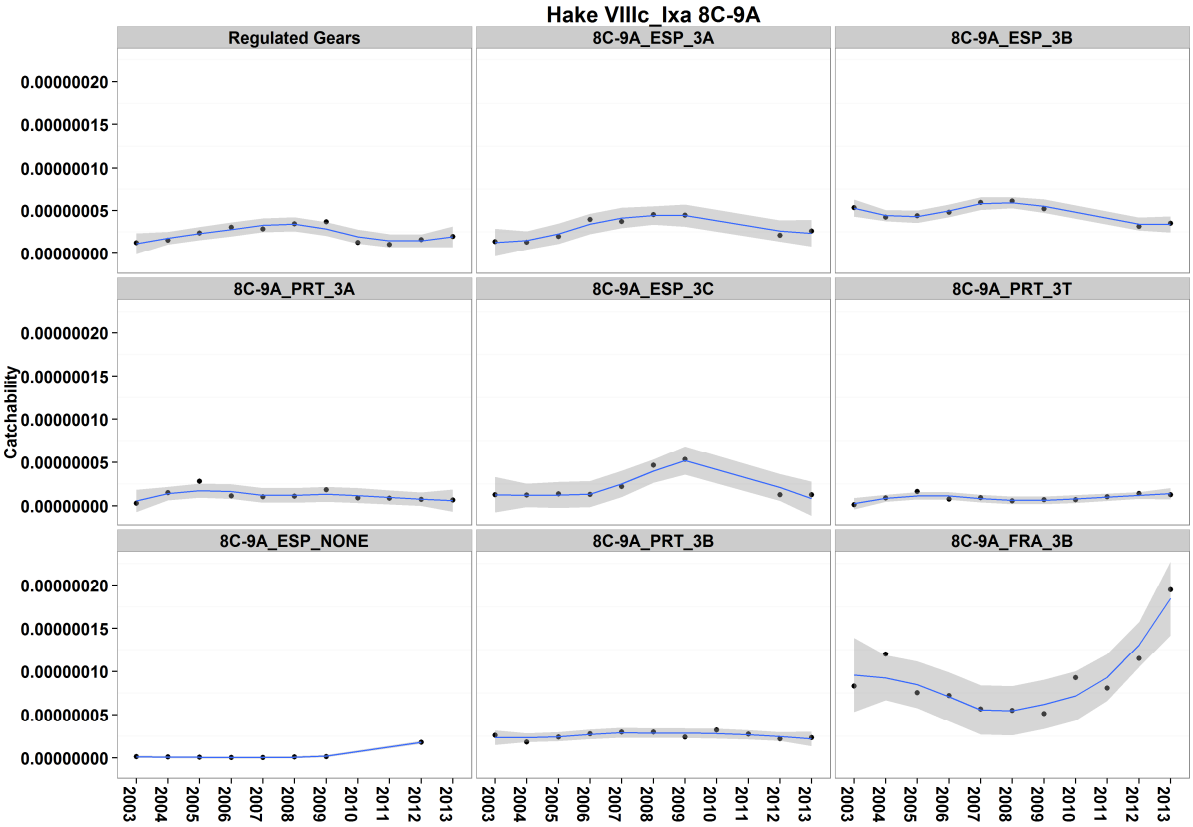


Fig. 5.7.8.2. Hake in Divisions VIIIc and IXa. Catchability for the major fleets and Member States (2003-2013) taking into account catches (landings and discards). There is discard information for all trawlers in all years and for Spanish gillnet since 2008. No Spanish data in 2010 and 2011. The code automatically selects the top 10 gears for the most recent 3-years in terms of catches and then only gears with >1% of the catch. They are displayed in order left-right, top-bottom. Data points are circles, a line represents a fitted smoother added to help highlight trends and the grey shading represents ± 2 standard errors (approx. 95% confidence interval).

VIIIc and IXa hake catchability for areas VIIIc and IXa has decreased in recent years for the regulated gears and the Spanish regulated trawl, gillnet and longline (Fig. 5.7.8.2).

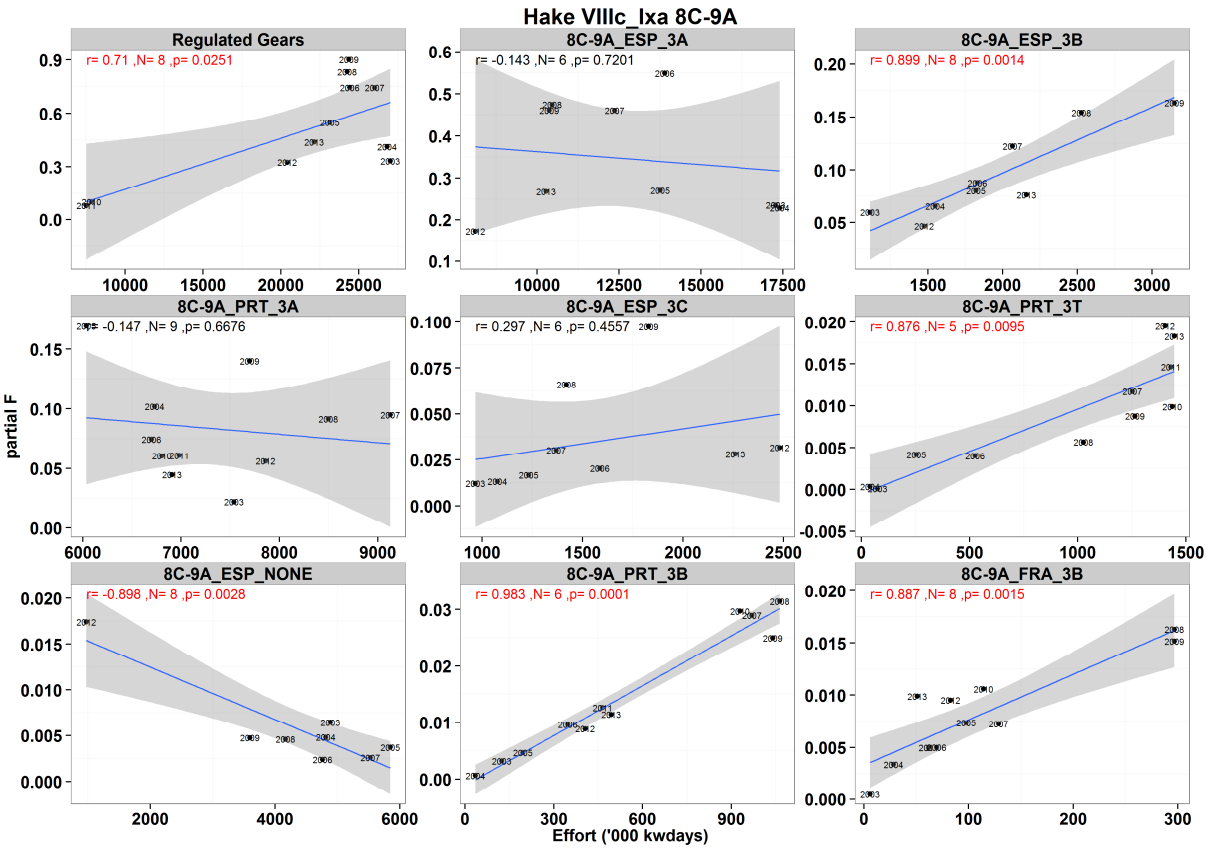


Fig. 5.7.8.3. Hake in Divisions VIIIc and IXa. Regression of partial fishing mortalities over effort (kWdays at sea) by major fleets and Member States (2003-2013) taking into account catches (landings and discards). There is discard information for all trawlers in all years and for Spanish gillnet since 2008. No Spanish data in 2010 and 2011. The code automatically selects the top 10 gears for the most recent 3-years in terms of catches and then only gears with >1% of the catch. They are displayed in order left-right, top-bottom. R value shows linear model fit (grey 95% confidence interval), with p-value (significant relationships at 0.05 level shown in red; N and p values adjusted for correlation).

Regressions of partial F against effort are shown in Fig. 5.7.8.3 for major fleets.

Partial F is significantly correlated to effort for regulated gears, for Spanish, Portuguese and French regulated gillnet and Portuguese trammel.

Partial F and effort show a significant inverse correlation for the Spanish unregulated gears except trammel ("NONE").

The presented parameters r (absolute value of Pearson's coefficient of correlation), numbers of points considered as well as a p-value to quantify the statistical significance (≤0.05) (Fig. 5.7.8.3) allow conclusions about the quality of the correlation between the partial F and fisheries specific fishing effort. Because there is auto-correlation in the data, the N-value (and p-value) is adjusted to address this and so it results in an N smaller than the actual number of data points. The objective of this is to make the correlation statistic more robust. The code automatically selects the top 10 gears for the most recent 3-

years in terms of catches and then only gears with >1% of the catch. They are then displayed in order left-right, top-bottom.

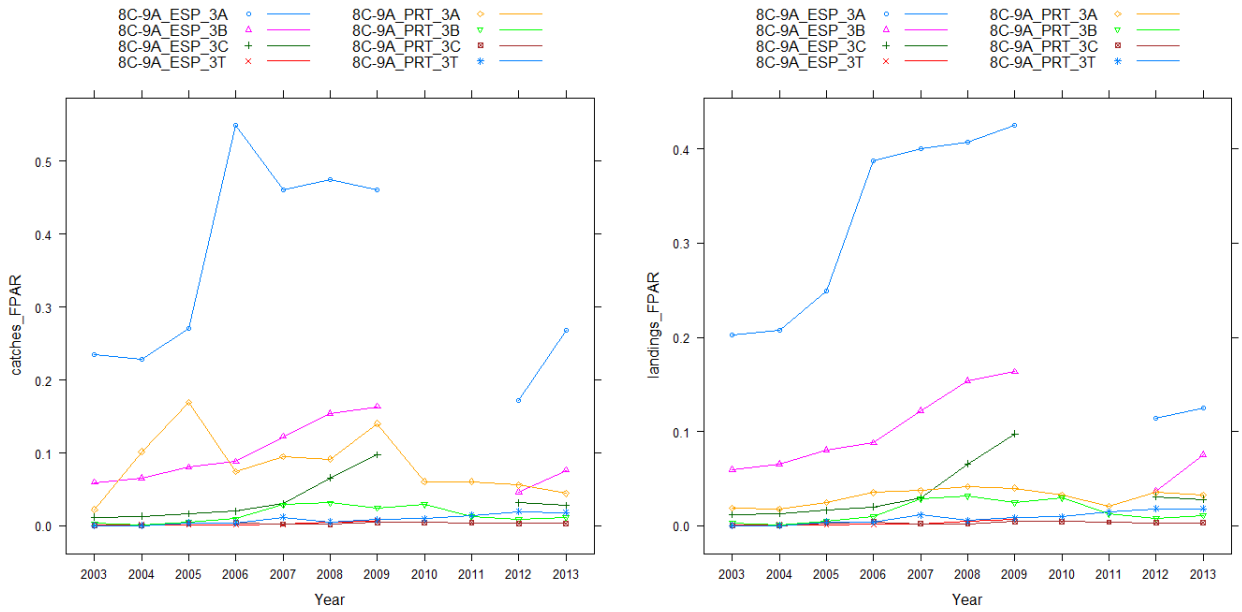


Fig. 5.7.8.4. Hake in Divisions VIIIc and IXa. Partial fishing mortalities by major fleets and Member States (2003-2013) taking into account catches (left) and only landings (right). There is discard information for all trawlers in all years and for Spanish gillnet since 2008. No Spanish data in 2010 and 2011. Data prior to the effort control regulation (2003-2005) might be incomplete and should be taken with caution.

Figure 5.7.8.4 shows the fleet with highest partial F according with the STECF EWG 14-13 is the Spanish regulated trawlers.

It can be concluded from the estimated F of the stock assessment (Table 5.7.8.1 and Fig. 5.7.8.1) that fishing mortality has decreased in recent years but is well above the F_{MSY} proxy (Table 5.7.8.1 and Fig. 5.7.8.1). The estimated F for 2013 by the ICES WG was 0.59, more than 2 times higher than the target of the recovery plan (0.27), and more than 2 times higher than the target of the ICES WGHMM since 2010 (F_{MSY}= 0.24). Nevertheless biomass seems to increase in recent years (Figure 5.7.8.1).

5.7.9 ToR 5 Considerations in order to accomplish spatio-temporal patterns in standardized catchability indices for hake, Nephrops and anglerfish

STECF EWG-14-13 considered it was not possible to consider spatio-temporal patterns in standardized catchability because of concerns over the quality of the Portuguese effort by rectangle data for 2013 (see section 5.7.1.1).

5.8 Western Channel effort regime evaluation in the context of Annex IIC to Council Regulation (EC) No 57/2011)

5.8.1 ToR 1.a Fishing effort in kWdays, GTdays, and number of vessels by Member State and fisheries

STECF EWG-14-13 notes that assignment of derogations and special conditions is based on best expert knowledge. Data errors may exist regarding the huge data bases and the special knowledge required to deal with them (grouping and exact formulation of data queries).

STECF EWG noted six years ago a change in Annexes IIC to Council Reg. 41/2007 for 2007 as compared to the Annex IIC to 51/2006 which removed the special conditions IIC71a and IIC71b to static nets <220mm (3b). STECF EWG further notes that there were no special derogations added to Annex IIC of Council Reg. 40/2008, Annex IIC of Council Reg. 43/2009, Annex IIC of Council Reg. 53/2010, Annex IIC of Council Reg. 57/2011, Annex IIC of Council Reg. 43/2012, Annex IIC of Council Reg. 39/2013 or Annex IIC of Council Reg. 43/2014. Table 5.8.1.1 lists the historic developments of days at sea by vessel and derogations.

Table 5.8.1.1 – Western Channel - Historic trends in days at sea by vessel specified in the Council Regulations since 2005.

Annex	AREA	REG GEAR	SPECON	2005	2006	2007	2008	2009	2010	2011	2012*	2013**	2014
IIc	7e	3a	none	240	216	192	192	192	164	164	164	164	164
IIc	7e	3b	none	240	216	192	192	192	164	164	164	164	164
IIc	7e	3b deleted	ICC71ab		365								

*UK has been allocated 42 extra days for regulated gear 3a in 2012

**UK has been allocated 43 extra days for regulated gear 3a in 2013

FR has been allocated 11 extra days for regulated gear 3a in 2013

FR has been allocated 14 extra days for regulated gear 3b in 2013

The previously identified French data problems affecting 2002 have so far not been corrected. STECF EWG decided therefore only to provide effort trends graphically starting from 2003. For brevity and clarity in this report only information since 2004 are tabulated. The dominating fleet from the two existing derogations in 7e (3a and 3b) is by far the English beam trawl fleet with percentages in the last 9 years in excess of 55% of the effort deployed (Table 5.8.1.2 and Figures 5.8.1.1 and 5.8.1.2). The other fleets involved are the French static gear fleet with a decreasing trend from 22% in 2006 to 6% in 2013 of the deployed effort and the Belgian beam trawl fleet with an increasing trend from less than 1% in 2000 up to about 16% in 2007 followed by a fluctuation around 10-15%. STECF-EWG however notes that about 85% of the overall effort deployed could not be allocated to regulated gear (e.g. gears outside the regulation such as otter- and pelagic trawls, dredges and pots). The “total” trend in Figure 5.8.1.2 is therefore highly influenced by the ‘none’ regulated gear group. Effort from regulated gears remains low. The composition of the unregulated gears can be found in Table 5.8.1.7. Figure 5.8.1.3 shows the trends for all the unregulated gear in area VIIe.

There are no differences between the data provided for the years 2004-2012 in 2014 and 2013 in effort (kW*days at sea) for the Western Channel (Table 5.8.1.3).

Information on GT*days at sea and the number of vessels active in 7e is presented in Tables 5.8.1.4 and 5.8.1.5 respectively.

The trends in the nominal effort of the two derogations (3a and 3b) are illustrated in Table 5.8.1.6. The beam trawl fleets decreased gradually from 2% above the 2004-2006 level in 2004 to 37% below that level in 2009. Thereafter it fluctuated between 30% and 37% below the 2004-2006 level. Also the static gear effort dropped substantially from 9% above the 2004-2006 level in 2004 to a 77% below the 2004-2006 level in 2013.

Category 'none' represents unregulated gear types and mesh sizes in addition to unidentified mesh sizes The effort of the unregulated gear group 'None' has been around 85% of the overall nominal effort for the whole time series.

Table 5.8.1.7 shows the disaggregation of the 'none' category into the different gears categories. Effort by otter trawl is by far the dominant gear category with percentages in excess of 40% for all years. Dredges contribute around 25 %. Pelagic trawl and pots contribute each about 10% to the overall effort of the non-regulated gear. The rest of the gears also account for about 10%.

Table 5.8.1.2 – Western Channel - Trend in nominal effort (kW*days at sea) by existing derogations given in Table 1 of Annex IIC (Coun. Reg. 43/2014) and Member State, 2004-2013. Derogations are sorted by gear, special condition (SPECON), and country. Data qualities are summarised in Section 4 of the report.

ANNEX	REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
IIc	7e	3a	none	BEL	633428	689624	628907	837161	584560	358399	383303	514973	554941	423935
IIc	7e	3a	none	ENG	3206806	3227096	3283897	3021075	2871790	2197118	2227991	2318845	2474852	2250479
IIc	7e	3a	none	FRA	317275	261700	289867	320576	146443	138669	303078	200030	131536	61050
IIc	7e	3a	none	GBJ	209969	121139								
IIc	7e	3a	none	IRL	34577	16518	6474	16610	2143	442				
IIc	7e	3a	none	SCO				3666		1396				
IIc	**7e**	**3a Total**	**none**		**4402055**	**4316077**	**4209145**	**4199088**	**3604936**	**2696024**	**2914372**	**3033848**	**3161329**	**2735464**
IIc	7e	3b	none	ENG	206294	178818	153434	103278	104187	104045	109304	118156	113947	117863
IIc	7e	3b	none	FRA	1236654	946127	1236595	920004	615534	611990	304540	280434	302188	182019
IIc	7e	3b	none	SCO			1215	3240	9315	2430				
IIc	**7e**	**3b Total**	**none**		**1442948**	**1124945**	**1391244**	**1026522**	**729036**	**718465**	**413844**	**398590**	**416135**	**299882**
IIc	7e	none	none	BEL	6625	11039	17515	17231	45760	106007	138035	95963	213484	99135
IIc	7e	none	none	DEN	1780	46728	107696	39322	80473	17994	90505		67919	60745
IIc	7e	none	none	ENG	4177419	4262278	4138385	4149320	3744303	4043960	4222836	4398527	4523403	4241110
IIc	7e	none	none	FRA	17093208	17780680	19456045	19370589	12637420	12553428	12823801	13095161	12156880	11976886
IIc	7e	none	none	GBG	75868	57128	45780	57710	28376	37038	68030	58026	61697	85787
IIc	7e	none	none	GBJ	1476	6745	19360	30580	25740	31020	38060	42020	13640	33660
IIc	7e	none	none	GER	106234	92768	29865		36994	21196	139157	51687	199687	240659
IIc	7e	none	none	IOM			19902	1116	778				18368	984
IIc	7e	none	none	IRL	347597	152539	3880	23340	1023	14228	52800	22942	13220	17734
IIc	7e	none	none	LIT						29520		150400		
IIc	7e	none	none	NED	449855	632891	956066	894614	1073200	801327	1040600	558954	949302	1492210
IIc	7e	none	none	NIR	1302						576			
IIc	7e	none	none	SCO	607937	691419	585805	595030	606253	676127	598837	543344	641501	715088
IIc	7e	none	none	SPN									13629	2167
IIc	**7e**	**none Total**	**none**		**22869301**	**23734215**	**25380299**	**25178852**	**18280320**	**18331845**	**19213237**	**19017024**	**18872730**	**18966165**
IIc	**7e**	**Grand Total**	**none**		**28714304**	**29175237**	**30980688**	**30404462**	**22614292**	**21746334**	**22541453**	**22449462**	**22450194**	**22001511**

Table 5.8.1.3 – Western Channel – Percentage difference in effort (kW*days at sea) by existing derogations given in Table 1 of Annex IIC (Coun. Reg. 43/2014) and Member State, 2004-2012. Derogations are sorted by gear, special condition (SPECON), and country. Data qualities are summarised in Section 4 of the report.

annex	reg_area_cod	reg_gear_cod	country	specon	vessel_length	2004	2005	2006	2007	2008	2009	2010	2011	2012
FDFIIC	7E	3A	ENG	FDFIIC	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
FDFIIC	7E	BEAM	ENG	FDFIIC	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	3A	BEL	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	3A	ENG	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	3A	ENG	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	3A	FRA	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	3A	FRA	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	3A	GBJ	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	3A	IRL	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	3A	NED	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	3A	SCO	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	3B	ENG	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	3B	ENG	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	3B	FRA	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	3B	FRA	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	3B	SCO	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	BEAM	BEL	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	BEAM	ENG	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	BEAM	ENG	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	BEAM	FRA	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	BEAM	FRA	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	BEAM	GBJ	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	BEAM	IRL	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	BEAM	NED	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	DEM_SEINE	BEL	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	DEM_SEINE	ENG	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	DEM_SEINE	FRA	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	DEM_SEINE	FRA	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	DEM_SEINE	NED	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	DEM_SEINE	SCO	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	DREDGE	BEL	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	DREDGE	ENG	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	DREDGE	ENG	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	DREDGE	FRA	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	DREDGE	FRA	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	DREDGE	GBJ	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	DREDGE	IOM	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	DREDGE	IOM	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	DREDGE	IRL	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	DREDGE	NED	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	DREDGE	SCO	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	DREDGE	SCO	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	GILL	BEL	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	GILL	ENG	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	GILL	ENG	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	GILL	FRA	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	GILL	FRA	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	GILL	SCO	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	LONGLINE	DEN	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	LONGLINE	ENG	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	LONGLINE	ENG	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	LONGLINE	ESP	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	LONGLINE	FRA	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	LONGLINE	FRA	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	LONGLINE	SCO	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%

Table 5.8.1.3 (cont) – Western Channel – Percentage difference in effort (kW*days at sea) by existing derogations given in Table 1 of Annex IIC (Coun. Reg. 43/2014) and Member State, 2004-2012. Derogations are sorted by gear, special condition (SPECON), and country. Data qualities are summarised in Section 4 of the report – Continued.

annex	reg_area_cod	reg_gear_cod	country	specon	vessel_length	2004	2005	2006	2007	2008	2009	2010	2011	2012
IIC	7E	NONE	FRA	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	NONE	FRA	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	OTTER	BEL	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	OTTER	DEN	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	OTTER	ENG	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	OTTER	ENG	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	OTTER	ESP	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	OTTER	FRA	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	OTTER	FRA	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	OTTER	GBG	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	OTTER	GBG	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	OTTER	GBJ	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	OTTER	IRL	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	OTTER	NED	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	OTTER	NIR	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	OTTER	SCO	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	OTTER	SCO	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	PEL_SEINE	ENG	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	PEL_SEINE	ENG	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	PEL_SEINE	FRA	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	PEL_SEINE	FRA	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	PEL_SEINE	SCO	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	PEL_TRAWL	DEN	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	PEL_TRAWL	ENG	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	PEL_TRAWL	ENG	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	PEL_TRAWL	FRA	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	PEL_TRAWL	FRA	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	PEL_TRAWL	GBG	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	PEL_TRAWL	GBJ	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	PEL_TRAWL	GER	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	PEL_TRAWL	IRL	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	PEL_TRAWL	IRL	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	PEL_TRAWL	LIT	NONE	O40M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	PEL_TRAWL	NED	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	PEL_TRAWL	SCO	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	PEL_TRAWL	SCO	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	POTS	ENG	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	POTS	ENG	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	POTS	FRA	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	POTS	FRA	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	POTS	GBG	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	POTS	GBG	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	POTS	IOM	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	POTS	IRL	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	POTS	SCO	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	POTS	SCO	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	TRAMMEL	ENG	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	TRAMMEL	ENG	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	TRAMMEL	FRA	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIC	7E	TRAMMEL	FRA	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%

Table 5.8.1.4 – Western Channel - Trend in GTdays (GT*days at sea) by existing derogations given in Table 1 of Annex IIC (Coun. Reg. 43/2014) and Member State, 2004-2013. Derogations are sorted by gear, special condition (SPECON), and country. Data qualities are summarised in Section 4 of the report.

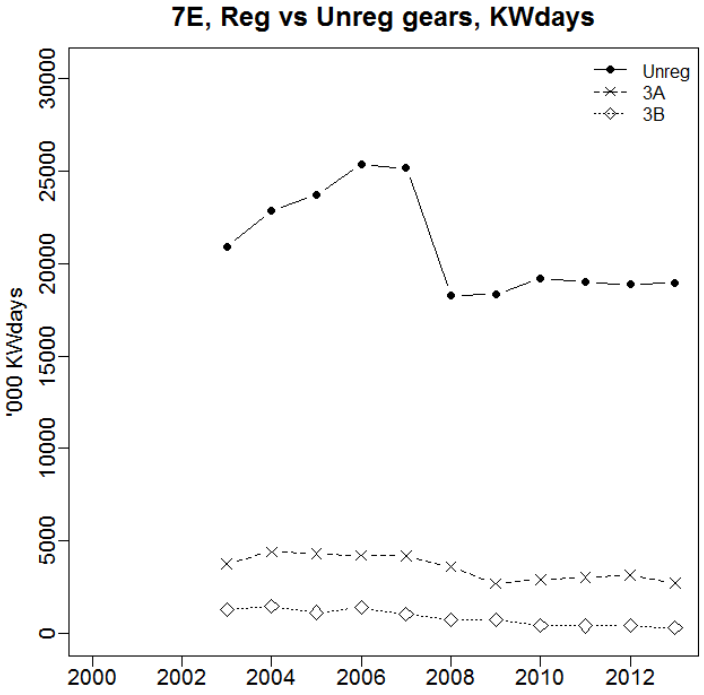
ANNEX	REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
IIc	7e	3a	none	BEL	217960	230378	211798	264266	182061	108653	115214	158450	163206	133240
IIc	7e	3a	none	ENG	931813	932208	957038	922227	919080	715956	732929	810429	942571	881478
IIc	7e	3a	none	FRA	67633	58636	54792	58858	22666	21952	59701	45891	29538	13241
IIc	7e	3a	none	GBJ	63209	36001								
IIc	7e	3a	none	IRL	7838	4112	2022	3620	810	196				
IIc	7e	3a	none	SCO				1296		592				
IIc	**7e**	**3a Total**	**none**		**1288453**	**1261335**	**1225650**	**1250267**	**1124617**	**847349**	**907844**	**1014770**	**1135315**	**1027959**
IIc	7e	3b	none	ENG	48508	45697	42816	24434	24507	21666	25049	24994	24202	26582
IIc	7e	3b	none	FRA	158424	125936	172966	133602	77388	76950	43128	33332	36865	24979
IIc	7e	3b	none	SCO			384	1024	2944	768				
IIc	**7e**	**3b Total**	**none**		**206932**	**171633**	**216166**	**159060**	**104839**	**99384**	**68177**	**58326**	**61067**	**51561**
IIc	7e	none	none	BEL	3636	5200	6484	6161	15039	34208	43562	29969	65661	31247
IIc	7e	none	none	DEN	774	23056	55676	18646	35877	8022	40349		45702	49971
IIc	7e	none	none	ENG	1004424	1014489	996194	942884	917363	947737	1020597	1028118	1221418	999623
IIc	7e	none	none	FRA	3320926	3501265	3904177	3818126	2530061	2518492	2948271	2952478	2670451	2666008
IIc	7e	none	none	GBG	14231	10689	8385	12267	5219	6974	12573	10903	11211	15474
IIc	7e	none	none	GBJ	511	1708	5787	9141	7694	9271	11377	12561	4078	10061
IIc	7e	none	none	GER	143250	106230	39730		50030	29112	154280	48999	189473	256014
IIc	7e	none	none	IOM			4547	255	114				4121	221
IIc	7e	none	none	IRL	107588	41848	1240	10073	415	6676	52272	10030	5783	7765
IIc	7e	none	none	LIT						28497		149507		
IIc	7e	none	none	NED	331902	391614	734553	602242	769364	432549	687063	355146	791963	1369630
IIc	7e	none	none	NIR	301						221			
IIc	7e	none	none	SCO	198595	218717	194240	208252	229716	265052	225247	200533	233498	263695
IIc	7e	none	none	SPN									12069	1607
IIc	**7e**	**none Total**	**none**		**5126138**	**5314816**	**5951013**	**5628047**	**4560892**	**4286590**	**5195812**	**4798244**	**5255428**	**5671316**
IIc	**7e**	**Grand Total**	**none**		**6621523**	**6747784**	**7392829**	**7037374**	**5790348**	**5233323**	**6171833**	**5871340**	**6451810**	**6750836**

Table 5.8.1.5 – Western Channel - Trend in number of vessels by existing derogations given in Table 1 of Annex IIC (Coun. Reg. 43/2014) and Member State, 2004-2013. Derogations are sorted by gear, special condition (SPECON), and country. Data qualities are summarised in section 4 of the report.

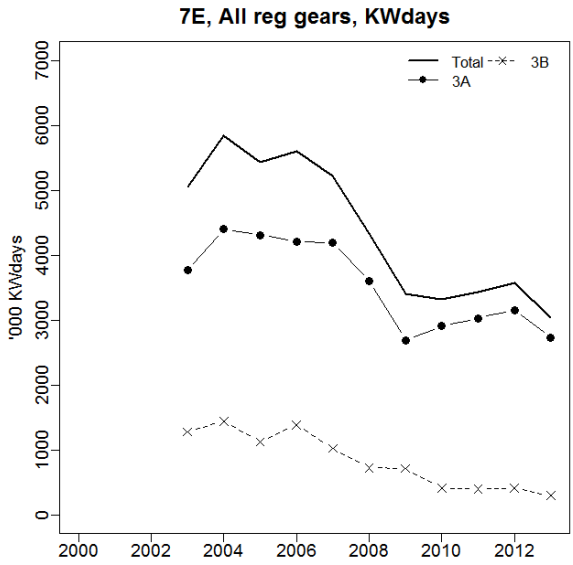
ANNEX	REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
IIc	7e	3a	none	BEL	57	67	58	55	49	44	31	33	37	33
IIc	7e	3a	none	ENG	62	53	51	53	47	43	38	44	43	44
IIc	7e	3a	none	FRA	12	13	20	15	11	10	13	8	6	6
IIc	7e	3a	none	GBJ	4	2								
IIc	7e	3a	none	IRL	2	2	5	1	2	1				
IIc	7e	3a	none	SCO				1		1				
IIc	**7e**	**3a Total**	**none**		**137**	**137**	**134**	**125**	**109**	**99**	**82**	**85**	**86**	**83**
IIc	7e	3b	none	ENG	21	17	17	14	12	13	12	12	11	10
IIc	7e	3b	none	FRA	68	62	77	48	34	34	22	22	25	19
IIc	7e	3b	none	SCO			1	1	1	1				
IIc	**7e**	**3b Total**	**none**		**89**	**79**	**95**	**63**	**47**	**48**	**34**	**34**	**36**	**29**
IIc	7e	none	none	BEL	3	6	7	6	12	28	23	20	22	22
IIc	7e	none	none	DEN	1	4	8	1	1	1	1		1	1
IIc	7e	none	none	ENG	178	162	170	175	174	156	154	158	158	167
IIc	7e	none	none	FRA	837	943	1114	1259	868	1022	688	654	642	635
IIc	7e	none	none	GBG	1	2	4	5	4	3	3	2	3	3
IIc	7e	none	none	GBJ	1	1	1	1	1	1	2	3	1	1
IIc	7e	none	none	GER	4	3	3		2	1	3	1	2	4
IIc	7e	none	none	IOM			1	1	2				1	1
IIc	7e	none	none	IRL	13	5	1	3	2	2	1	2	3	2
IIc	7e	none	none	LIT						1		1		
IIc	7e	none	none	NED	15	13	13	19	15	18	16	17	15	16
IIc	7e	none	none	NIR	1						1			
IIc	7e	none	none	SCO	23	14	21	16	15	18	18	19	18	20
IIc	7e	none	none	SPN									5	2
IIc	**7e**	**none Total**	**none**		**1077**	**1153**	**1343**	**1486**	**1096**	**1251**	**910**	**877**	**871**	**874**
IIc	**7e**	**Grand Total**	**none**		**1303**	**1369**	**1572**	**1674**	**1252**	**1398**	**1026**	**996**	**993**	**986**

Table 5.8.1.6 Western Channel - Trend in nominal effort (kW*days at sea) by derogations given in Table 1 of Annex IIC (Coun. Reg. 43/2014), 2004-2013. Derogations are sorted by gear and special condition (SPECON). Data qualities are summarised in Section 4 of the report.

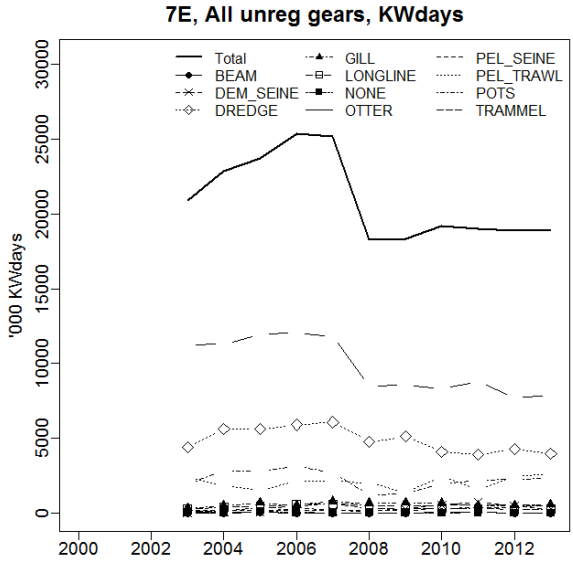
ANNEX	REG AREA	REG GEAR	SPECON	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Rel. Change to 04-06	Rel. Change to 12
IIc	7e	3a	none	4402055	4316077	4209145	4199088	3604936	2696024	2914372	3033848	3161329	2735464	-0.37	-0.13
IIc	7e	3b	none	1442948	1124945	1391244	1026522	729036	718465	413844	398590	416135	299882	-0.77	-0.28
IIc	7e	none	none	22869301	23734215	25380299	25178852	18280320	18331845	19213237	19017024	18872730	18966165	-0.21	0.00
Sum	7e			28714304	29175237	30980688	30404462	22614292	21746334	22541453	22449462	22450194	22001511	-0.26	-0.02



Figures 5.8.1.1 – Western Channel -Trend in nominal effort (kW*days at sea) by derogations given in Table 1 of Annex IIC (Coun. Reg. 43/20142), 2003-2013. Derogations are sorted by gear and special condition (SPECON). Data qualities are summarized in section 4. 3a represents beam trawls of mesh size ≥ 80 mm and 3b represents static nets with mesh size < 220 mm.



Figures 5.8.1.2 – Western Channel -Trend in nominal effort (kW*days at sea) by derogations given in Table 1 of Annex IIC (Coun. Reg. 43/2014), 2003-2013. Derogations are sorted by gear and special condition (SPECON). Data qualities are summarised in section 4. 3a represents beam trawls of mesh size ≥ 80 mm and 3b represents static nets with mesh size < 220 mm.



Figures 5.8.1.3 – Western Channel -Trend in nominal effort (kW*days at sea) by unregulated gear according to Table 1 of Annex IIC (Coun. Reg. 43/2014), 2003-2013. Data qualities are summarised in section 4.

Table. 5.8.1.7. Western Channel Unregulated gear (category none-none) effort (kW*Days) by gear type, 2004-2013.

ANNEX	REG_AREA	REG_GEAR	REG GEAR COD	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
IIc	7e	none	OTTER	11306477	11989022	12028329	11848608	8487417	8578780	8281710	8829762	7718110	7870251
IIc	7e	none	DREDGE	5637002	5602368	5903594	6083728	4767408	5120969	4098107	3897499	4292450	3984119
IIc	7e	none	PEL_TRAWL	1830379	1475309	2168733	2140059	2012123	1410938	2458100	1537387	2449951	2612035
IIc	7e	none	POTS	2801196	2784755	3141625	2718763	1232195	1275601	1972511	2202740	2252751	2342869
IIc	7e	none	GILL	488105	674577	534836	781892	658756	666149	661402	520427	507914	550685
IIc	7e	none	PEL_SEINE	193853	183887	295531	207190	175282	174967	321953	344896	395244	511464
IIc	7e	none	TRAMMEL	131206	346504	436467	626072	486195	475625	522126	571254	541891	496966
IIc	7e	none	DEM_SEINE	52316	94168	202941	166784	129716	309602	537514	730853	453211	290151
IIc	7e	none	LONGLINE	382787	441367	615657	587251	312345	279633	321512	301230	237950	278238
IIc	7e	none	BEAM	12234	65823	9980	6031		20698	38302	32175	23258	26323
IIc	7e	none	NONE	33746	76435	42606	12474	18883	18883		48801		3064
Sum				**22869301**	**23734215**	**25380299**	**25178852**	**18280320**	**18331845**	**19213237**	**19017024**	**18872730**	**18966165**

5.8.2 ToR 1.b Catches (landings and discards) of sole in weight and numbers at age by fisheries

Although the data available for the review of Annex IIC of regulation 53/2010 comes from all countries involved in the fisheries, there is only sparse discard information available for most of the species. Some discard information is available for the last few years for anglerfish, cod, haddock, hake, plaice, sole and whiting.

Table 5.8.2.1 lists the landings, discards, discard rates and a "Discard Coverage Index" for the sole by derogations (see explanation of "Discard Coverage Index" in section 4.5). In the regulated beam trawl gear (3a) the discard rates never supersede the 2% and gets an A classification for "Discard Coverage Index" for all years except 2005, 2009 and 2010 when they are classified as B. Discard rates for the regulated static gear (3b) is available since 2010 and gets a C categorisation for "Discard Coverage Index". For brevity, the following sections represent the landings and discards by derogation in weight for a subset of the species caught i.e. anglerfish (ANF), cod (COD), haddock (HAD), hake, (HKE), Nephrops (NEP), plaice (PLE), saithe (POK), sole (SOL), and whiting (WHG). However, additional data queries for other species can be made depending on data provisions of the national catches by the experts or national institutes. The data given in the table form the basis of Figure 5.8.2.1 displaying the catch compositions by derogations for the years 2004-2013. The absence of dark bars representing discards also indicates lack of observations rather than low discard numbers.

Figure 5.8.2.1 shows that sole landings have been fluctuating around average. The lower landings for sole in 2003 and 2004 are likely to be an artefact as they are about 50% lower than the landings submitted to ICES (landings used in the assessment of sole 7e). See also section 5.8.10 where the data points for 2003 and 2004 were omitted from the partial F evaluations. For comment on the other species, see section below (*Tor 1.c).*

Table 5.8.2.2 provides the sole landings of the unregulated gear types. The sole landings of the unregulated gear are in excess of 27% of the overall sole landings in area 7e for each year of the data series (2004-2013). The otter trawl fleet is the main fleet involved with percentages in excess of 22%. For 2013 the unregulated gears account for 30% of the overall sole landings where the otter trawl fleet is responsible for 26% of these landings.

STECF EWG-14-13 notes that the aggregation for the fill-ins of the discard estimates for the unregulated gears in area 7e – which are responsible for substantial catches of the main species - sometimes do not reflect the real discard values for these unregulated gears. Member States provide discard estimates specific for gear and mesh-size. The aggregation does only take account of the gear and not the mesh-size. Therefore, sometimes discard rates for e.g. otter trawls with mesh-size 16-32 mm are used as a fill-

ins for otter trawls with mesh size 80-89 mm. Regulated gears are linked to gear and mesh-size and therefore do represent true discard estimates when fill-ins are used.

Tab. 5.8.2.1 Western Channel - Landings (t), discards (t) and relative discard rates for sole and derogation, 2004-2013 – See note on fill-ins for unregulated gears - The bottom part of the table repeats the discard rates together with a "Discard Coverage Index" A,B or C. (see explanation of "Discard Coverage Index" in section 4.5).

ANNEX	REG_GEAR	SPECIES	2004 L	2004 D	2004 R	2005 L	2005 D	2005 R	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R	2013 L	2013 D	2013 R
IIc	3a	SOL	185	0		487	0		530	0		496	1.557	0.003	431	0.029	0.000	348	3.598	0.01	375	6.723	0.018	430	6.929	0.016	478	2.313	0.005	473	1.738	0.004
IIc	3b	SOL	48			71			41			49			45			48			22	0.738	0.032	49	0.006	0	42	0.638	0.015	23	0	
IIc	none	SOL	193			302			269			274			233			222			197			226			189			208		

ANNEX	REG_GEAR	SPECIES	2004 R	2004 DQI	2005 R	2005 DQI	2006 R	2006 DQI	2007 R	2007 DQI	2008 R	2008 DQI	2009 R	2009 DQI	2010 R	2010 DQI	2011 R	2011 DQI	2012 R	2012 DQI	2013 R	2013 DQI
IIc	3a	SOL	0.000	A	0.000	B	0.000	A	0.003	A	0.000	A	0.01	B	0.018	B	0.016	A	0.005	A	0.004	A
IIc	3b	SOL													0.032	C	0	C	0.015	C	0	C

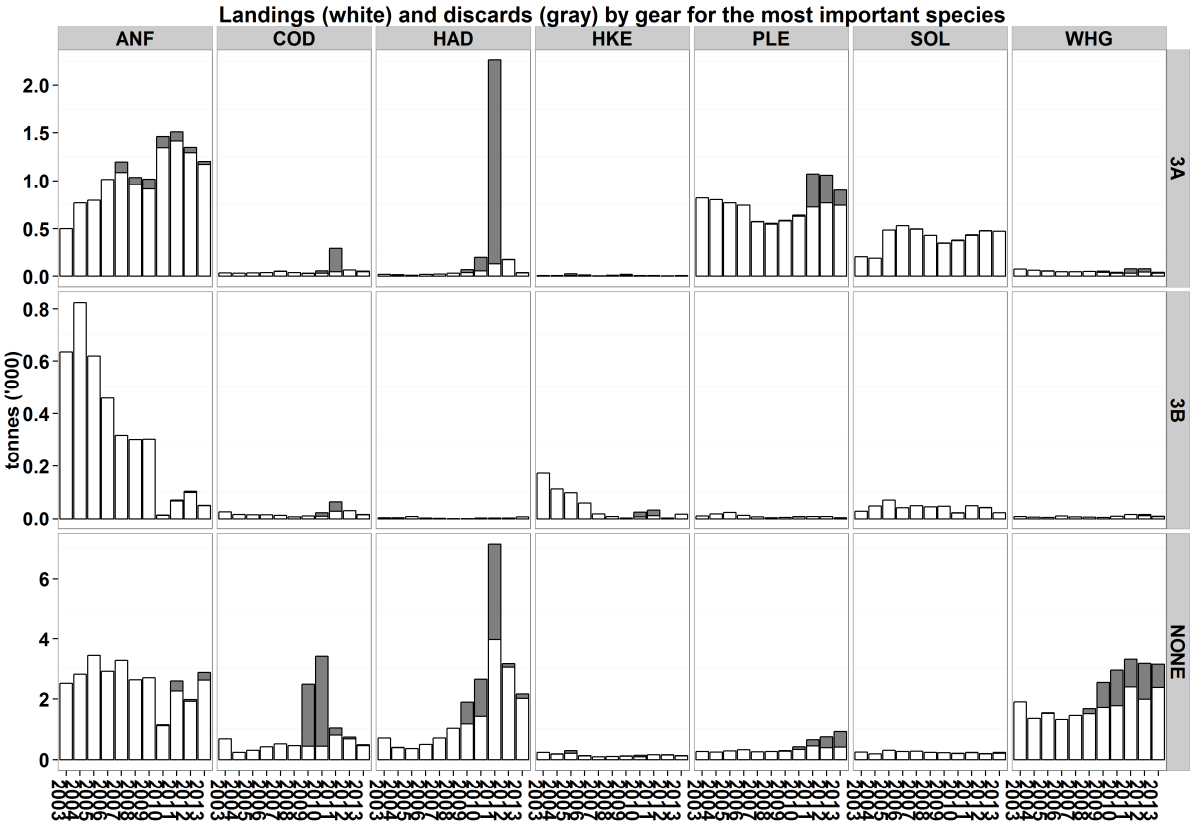


Fig. 5.8.2.1 – Western Channel - Landings (t) and discard (t) by derogation and species, 2004-2013, as well as for the "none" regulated gear. – See note on fill-ins for unregulated gears - Note that information collected on discards is incomplete, so the apparent absence of discards in the figures for a given species/gear does not necessarily mean zero discards.

Table. 5.8.2.2. Western Chanel. Unregulated gear (category none-none) sole (t) landings composition by gear type, 2004-2013. – See note on fill-ins for unregulated gears.

ANNEX	REG_ARE	REG_GEA	SPECON	SPECIES	2004 L	2005 L	2006 L	2007 L	2008 L	2009 L	2010 L	2011 L	2012 L	2013 L
IIc	7e	OTTER	NONE	SOL	165	235	237	240	193	187	157	188	153	183
IIc	7e	DREDGE	NONE	SOL	17	29	26	31	39	32	23	29	30	23
IIc	7e	POTS	none	SOL	0	3	0	1	0	0	10	4	3	1
IIc	7e	BEAM	none	SOL	1	13	1	0		1	1	1	0	1
IIc	7e	PEL_SEIN	none	SOL							0		0	0
IIc	7e	GILL	none	SOL	2	5	0	0	0	1	3	2	1	0
IIc	7e	PEL_TRAV	none	SOL	0	0	0	0	0	0	1	1	1	0
IIc	7e	TRAMMEL	NONE	SOL	5	12	0	1	2	2	1	1	1	0
IIc	7e	NONE	NONE	SOL	2	4	4	0	0	0				0
IIc	7e	DEM_SEIN	none	SOL							0	1	0	0
IIc	7e	LONGLINE	none	SOL	0	0	0	0	0	0	0	0	0	0
Sum					**193**	**302**	**269**	**274**	**233**	**222**	**197**	**226**	**189**	**208**

The relative contribution of sole weights in the catch (Table 5.8.2.3) shows an increase from 2004 to 2006 and stabilization afterwards for the dominating beam trawls (3a), which coincides with a decrease of the category "none", mainly otter trawls which are not effort regulated in Annex IIc. STECF EWG notes however that this otter trawl fleet is generally responsible for about 25-35% of the estimated sole and plaice catches in weight and about 85% of the cod catches in weight. Discard information for otter trawls indicate sole discard rates between 0% and 15% in 2010-2013. The static nets with mesh size <220 mm (3b) are taking around 3-11% of sole catches in weight. There is no difference in ranking of the derogations according to the year 2013 or the average of 2011-2013.

Table 5.8.2.3 Western Channel - Ranked derogations according to relative sole catches in weight (t) 2004-2012. Ranking is according to the year 2012 and the average 2010-2013.

ANNEX	REG_AREA	SPECIES	REG_GEAR	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel	2011 Rel	2012 Rel	2013 Rel	Avg.2011-2013
IIc	7e	SOL	3a	0.43	0.57	0.63	0.61	0.61	0.57	0.62	0.61	0.67	0.64	0.64
IIc	7e	SOL	none	0.45	0.35	0.32	0.33	0.33	0.36	0.34	0.32	0.27	0.32	0.31
IIc	7e	SOL	3b	0.11	0.08	0.05	0.06	0.06	0.08	0.04	0.07	0.06	0.03	0.05

5.8.3 ToR 1.c Catches (landings and discards) of non-sole species in weight and numbers at age by fisheries

Table 5.8.3.1 lists the landings, discards, discard rates and a "Discard Coverage Index" for the main species except sole by derogation, 2004-2013 (see explanation of "Discard Coverage Index" in section 4.5). As the "none" category is a mixture of gear, discard rates (sometimes available from otter trawls, gill nets, trammel nets and dredges, are not tabulated). STECF 14-13 notes that sometimes discard estimates of the unregulated gears do not represent the real discard values (See note on fill-ins for unregulated gears).

For anglerfish, discard information is available for the regulated beam trawl gear (3a), fluctuating between 3% and 10% with a C qualifier for "Discard Coverage Index" for the years 2007-2009 and an 'A' qualifier for 2010-2013. Static gear (3b) indicates discard rates between 2% and 8% for 2010-2013 with a C qualifier. Information from otter trawls suggests discard rates between 2 and 16% for the years 2010-2013. For the same period, gill net and trammel net discard rates are around 6% and 3%, whereas for dredges they vary between 8% and 31%. Discard Coverage Index for the unregulated gears is

predominantly a B and C category. See note on the fill-in procedure for unregulated gears in the section above.

For cod, discard information for the regulated beam trawl gear (3a) is available since 2003, varying between extreme values (0%-85%) with "Discard Coverage Index" categories A and B). The regulated static gear (3b) discard rated vary between 0% and 55% with a "Discard Coverage Index" of C. Information from otter trawls suggests discard rates between 0% and 89% with a "Discard Coverage Index" of C. STECF-EWG would like to point out the huge spread of discard rates and that most of these values are obtained with a "Discard Coverage Index" of B and C. The 0% discards rates with a "Discard Coverage Index" of 'A' very likely do not reflect overall year behaviour of any gear. This applies also to other non-sole species. See note on the fill-in procedure for unregulated gears in the section above.

For plaice, discard information for the regulated beam trawl gear (3a) is available since 2003, varying between extreme values (0%-28%) with a "Discard Coverage Index" of A. Very few discard information is available for the regulated static gear (3b), varying between 1% and 12% with a "Discard Coverage Index" of C. Information from otter trawls suggests discard rates between 0% and 57% with a "Discard Coverage Index" of B and C. See note on the fill-in procedure for unregulated gears in the section above.

Figure 5.8.3.1 incorporates next to sole, also the other main species in the fisheries.

The landings of anglerfish for the beam trawl fleets (3a) have substantially increased in 2010, 2011, 2012 and 2012 whereas the landings of the regulated static gear (3b) has substantially decreased over that period.

Plaice catches for the regulated beam trawl gear (derogation 3a) have fluctuated around average. The catches (predominantly landings) of the other main non-sole species for regulated beam trawl gear have been stable at low levels. The substantial cod discards in 2012 could be allocated to a very good recruitment year class 2009. Landings by static nets (derogations 3b) are dominated by anglerfish which show a sharp decline since 2010. The category "none" which is responsible for most of the landings (except for sole, plaice and partly anglerfish) consist mainly of otter trawls. Information from otter trawls suggests that there is substantial discarding of cod, haddock and whiting (see also note on fill-ins above). However, it should be noted that there is almost no discard information available for the period before 2010, and therefore no trends in discard practices can be concluded. Landings of anglerfish remained stable apart from the drop in 2010; whereas landings of cod, haddock and whiting have increased since 2005 (Haddock landings have more than double in the last few years which may coincide with high discarding).

Table 5.8.3.2 provides the cod landings of the unregulated gear types. The cod landings of the unregulated gear are in excess of 84% of the overall cod landings in area 7e for each year of the data series (2004-2013). The otter trawl fleet is taking the bulk of these landings with percentages in excess of 80%. For 2013 the unregulated gears account for 88% of the overall cod landings where the otter trawl fleet is responsible for 83% of these landings

Table 5.8.3.3 provides the plaice landings of the unregulated gear types. The plaice landings of the unregulated gear are in excess of 23% of the overall plaice catches in area 7e for each year of the data series (2004-2013). The otter trawl fleet is the main fleet involved with percentages in excess of 22%. For 2013 the unregulated gears account for 35% of the overall plaice landings where the otter trawl fleet is responsible for 33% of these landings.

For the main pelagic species, herring, horse mackerel, mackerel and sprat, discard information is very sparse and only sometimes available for otter trawls with a "Discard Coverage Index" of C (information on the STECF website).

Tab. 5.8.3.1 Western Channel - Landings (t), discards (t) and relative discard rates by species and derogation, 2004-2013 – See note on fill-ins for unregulated gears - The bottom part of the table repeats the discard rates together with a "Discard Coverage Index" A,B or C. (see explanation of "Discard Coverage Index" in section 4.5).

ANNEX	REG_ARE/	SPECIES	REG_GEAR	2004 L	2004 D	2004 R	2005 L	2005 D	2005 R	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R	2013 L	2013 D	2013 R
IIc	7e	ANF	3a	769			795			1014			1087	108.865	0.091	959	75.545	0.073	915	100.499	0.099	1345	115.654	0.079	1413	95.746	0.063	1293	54.284	0.04	1170	31.745	0.026
IIc	7e	ANF	3b	824			619			459			317			301			302			13	1.117	0.08	67	2.952	0.042	99	4.317	0.042	50	0.808	0.016
IIc	7e	ANF	none	2802			3416			2899			3258			2624			2690			1104			2258			1925			2619		
IIc	7e	COD	3a	30	0.657	0.022	33	0		36	0		50	2.665	0.051	37			28	1.224	0.042	31	24.373	0.443	45	251.559	0.848	63	0.008	0	45	7.308	0.139
IIc	7e	COD	3b	16			15			15			14			8			11	0		10	12.814	0.553	29	35.607	0.554	31	0.021	0.001	15	0.858	0.053
IIc	7e	COD	none	232			304			420			513			451			434			432			797			672			457		
IIc	7e	HAD	3a	13	2.187	0.147	11	0		17	0		22	0.275	0.012	30			38	28.994	0.433	54	140.328	0.721	128	2133.654	0.943	170	4.949	0.028	35	2.692	0.072
IIc	7e	HAD	3b	4			8			3			2			1			1			3	0.039	0.011	2	0.78	0.265	3	0.063	0.021	7	0	
IIc	7e	HAD	none	384			363			492			703			1024			1167			1441			3971			3031			2026		
IIc	7e	HKE	3a	6	0.532	0.077	6	17.393	0.739	6	7.158	0.548	4	0.225	0.056	10	0		13	4.96	0.279	7	0.312	0.044	5	0.647	0.123	3	0.898	0.228	4	0.923	0.18
IIc	7e	HKE	3b	113			98			59			19			9			3			8	17.427	0.695	12	20.405	0.623	2	1.223	0.362	17	0	
IIc	7e	HKE	none	179			206			119			89			102			109			97			159			154			121		
IIc	7e	NEP	3a	0			0			0			0			0			0						0			0			0		
IIc	7e	NEP	3b				0			0			0			0			0			0			0			0			0		
IIc	7e	NEP	none	8			13			6			10			9			9			17			16			15			3		
IIc	7e	PLE	3a	801	0		767	0		743	0		571	2.346	0.004	547	8.208	0.015	581	6.226	0.011	627	13.912	0.022	726	344.116	0.321	767	291.209	0.275	743	158.158	0.175
IIc	7e	PLE	3b	19			25			13			8			4			6			7	0.979	0.12	8	0.03	0.004	9	0.182	0.021	4	0.157	0.039
IIc	7e	PLE	none	243			280			323			257			261			275			328			449			388			403		
IIc	7e	POK	3a	1			0			0			0			0			0			0			0	0		0			0		
IIc	7e	POK	3b	11			17			3			1			1			3			5			3			5	0		9	0.069	0.008
IIc	7e	POK	none	6			3			3			1			1			1			16			2			1			3		
IIc	7e	WHG	3a	61	0		53	0.553	0.01	45	0		45	1.155	0.025	48	0		39	12.767	0.247	30	9.276	0.237	32	44.111	0.58	42	33.042	0.439	31	8.795	0.223
IIc	7e	WHG	3b	7			5			10			8			7			6			10	0.328	0.032	16	0.324	0.019	12	4.594	0.278	9	0.539	0.056
IIc	7e	WHG	none	1369			1537			1329			1469			1526			1729			1781			2396			1993			2373		

ANNEX	REG_ARE/	SPECIES	REG_GEAR	2004 R	2004 DQI	2005 R	2005 DQI	2006 R	2006 DQI	2007 R	2007 DQI	2008 R	2008 DQI	2009 R	2009 DQI	2010 R	2010 DQI	2011 R	2011 DQI	2012 R	2012 DQI	2013 R	2013 DQI
IIc	7e	ANF	3a							0.091	C	0.073	C	0.099	C	0.079	A	0.063	A	0.04	A	0.026	A
IIc	7e	ANF	3b													0.08	C	0.042	C	0.042	C	0.016	C
IIc	7e	ANF	none																				
IIc	7e	COD	3a	0.022	B	B		A		0.051	A			0.042	B	0.443	A	0.848	B	0	A	0.139	B
IIc	7e	COD	3b											C		0.553	C	0.554	C	0.001	C	0.053	C
IIc	7e	COD	none																				
IIc	7e	HAD	3a	0.147	B	A		A		0.012	A			0.433	B	0.721	A	0.943	A	0.028	B	0.072	A
IIc	7e	HAD	3b													0.011	C	0.265	C	0.021	C	C	
IIc	7e	HAD	none																				
IIc	7e	HKE	3a	0.077	B	0.739	A	0.548	A	0.056	A	B		0.279	B	0.044	B	0.123	B	0.228	B	0.18	A
IIc	7e	HKE	3b													0.695	C	0.623	C	0.362	C	C	
IIc	7e	HKE	none																				
IIc	7e	NEP	3a																				
IIc	7e	NEP	3b																				
IIc	7e	NEP	none																				
IIc	7e	PLE	3a	A		A		A		0.004	A	0.015	A	0.011	B	0.022	A	0.321	A	0.275	A	0.175	A
IIc	7e	PLE	3b													0.12	C	0.004	C	0.021	C	0.039	C
IIc	7e	PLE	none																				
IIc	7e	POK	3a															C					
IIc	7e	POK	3b																	C		0.008	C
IIc	7e	POK	none																				
IIc	7e	WHG	3a	A		0.01	B	A		0.025	A	A		0.247	B	0.237	B	0.58	A	0.439	A	0.223	A
IIc	7e	WHG	3b													0.032	C	0.019	C	0.278	C	0.056	C
IIc	7e	WHG	none																				

Table. 5.8.3.2. Western Chanel. Unregulated gear (category none-none) cod (t) landings composition by gear type, 2004-2013. – See note on fill-ins for unregulated gears.

ANNEX	REG_ARE/	REG_GEA	SPECON	SPECIES	2004 L	2005 L	2006 L	2007 L	2008 L	2009 L	2010 L	2011 L	2012 L	2013 L
IIc	7e	OTTER	none	COD	223	298	391	503	438	415	399	749	618	431
IIc	7e	DEM_SEIN	NONE	COD	0	1	5	3	0	5	10	26	19	11
IIc	7e	PEL_SEINI	none	COD							0		15	7
IIc	7e	TRAMMEL	NONE	COD	1	1	2	2	4	3	6	9	14	6
IIc	7e	GILL	none	COD	4	3	4	3	5	7	6	4	2	1
IIc	7e	LONGLINE	none	COD	3	0	17	1	1	1	0	5	2	0
IIc	7e	PEL_TRAV	none	COD	0	0	0	0	0	0	5	1	2	0
IIc	7e	DREDGE	none	COD	0	0	0	1	2	2	6	1	0	0
IIc	7e	NONE	none	COD				0						0
IIc	7e	POTS	none	COD	0	0	0	0	0	0	1	1	0	0
IIc	7e	BEAM	none	COD	0	0	0				0	0	0	
Sum					**232**	**304**	**420**	**513**	**451**	**434**	**432**	**797**	**672**	**457**

Table 5.8.3.3 Western Chanel. Unregulated gear (category none-none) plaice (t) landings composition by gear type, 2004-2013. See note on fill-ins for unregulated gears.

ANNEX	REG_ARE/	REG_GEA	SPECON	SPECIES	2004 L	2005 L	2006 L	2007 L	2008 L	2009 L	2010 L	2011 L	2012 L	2013 L
IIc	7e	OTTER	none	PLE	232	258	311	247	252	262	316	428	367	382
IIc	7e	DREDGE	NONE	PLE	9	14	10	8	8	8	5	9	6	14
IIc	7e	DEM_SEIN	NONE	PLE	0	0	0	0	0	3	4	9	11	5
IIc	7e	BEAM	none	PLE	2	4	1	2		0	1	1	0	1
IIc	7e	PEL_SEINI	none	PLE				0			0		1	0
IIc	7e	PEL_TRAV	none	PLE	0	0	0	0	0	0	0	0	1	0
IIc	7e	TRAMMEL	none	PLE	0	3	0	0	1	1	0	1	1	0
IIc	7e	POTS	none	PLE	0	0	0	0	0	0	0	0	0	0
IIc	7e	NONE	none	PLE	1	0		0	0	0				0
IIc	7e	LONGLINE	none	PLE	0	0	0	0	0	0	0	0	0	0
IIc	7e	GILL	NONE	PLE	0	1	0	0	0	1	1	1	1	0
Sum					**243**	**280**	**323**	**257**	**261**	**275**	**328**	**449**	**388**	**403**

5.8.4 ToR 1.d CPUE and LPUE of sole, plaice and cod by fisheries and Member States

Limited discard information are available for sole, plaice and cod, therefore LPUE for sole, plaice and cod are represented in Tables 5.8.4.1-6. Figures 5.8.4.1-3 show CPUE and LPUE trends for sole, plaice and cod since 2003. Graphically, only the regulated gears and the most important unregulated gears (otter trawl and dredges) are presented.

Tables showing CPUE by gear groups (regulated and unregulated), area and nation are not presented in this report but are available on the JRC website: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1413

For sole the regulated beam trawl gear (3a) show a slight increasing trend for the main fleets of England, France and Belgium with values of around 150, 250 and 50 g/kW*days respectively. The high value for the French beamers could be explained because they are predominantly smaller boats with smaller engines compared to the English and Belgium beam trawl fleet. The low values for the Belgian fleet reflect more the "non targeting" nature of the fleet for sole. The CPUE and LPUE from the French and English static gear (3b) fluctuates highly from year to year between about 30 and 160 g/kW*days for the French fleet and about 5 and 90 g/kW*days for the English fleet.

The highest CPUE and LPUE for plaice are recorded by the English beam trawl fleet (3a), fluctuating between 160 and 294 g/kW*days, and by the Belgian beam trawl fleet between 70 and 262 g/kW*days. French beam trawl CPUE and LPUE has increased sharply from 16 g/kW*days in 2007 to 115 g/kW*days in 2011, followed by a decrease to 66 g/kW*days in 2013. The English otter trawl fleet also showed a sharp increase from 73 g/kW*days in 2007 to 170 g/kW*days in 2011, followed by a decrease to 149 g/kW*days in 2013.

Cod CPUE and LPUE have the highest values for English static gear (3b) with a sharp increase from 38 g/kW*days in 2008 to 167 g/kW*days in 2012, followed by 119 g/kW*days in 2013. The French otter trawls, fluctuating between 20 and 98 g/kW*days, whereas the English otter trawl and gill net fleet obtain only values between 11 and 54 g/kW*days. The CPUE and LPUE value for the French otter trawls increased steadily from 20 g/kW*days in 2004 to 98 g/kW*days in 2011, decreasing to 98 g/kW*days in 2013.

Table 5.8.4.1 Western Channel - Sole CPUE (g/(kW*days)) by derogation, Country and year, 2004-2013. Note: Discard information for area 7e is sparse and therefore LPUE is provided in the table. (CPUE is presented in the figures).

ANNEX	SPECIES	REG AREA COD	country	reg_gear_cod	LPUE 2004	LPUE 2005	LPUE 2006	LPUE 2007	LPUE 2008	LPUE 2009	LPUE 2010	LPUE 2011	LPUE 2012	LPUE 2013	LPUE 2011-2013
IIc	SOL	7e	BEL	3A	11	36	51	41	41	45	42	39	58	59	52
IIc	SOL	7e	BEL	BEAM	0	0	0	0	0						0
IIc	SOL	7e	BEL	DEM_SEINE	0	0	0	0	0	0	0	0	0	0	0
IIc	SOL	7e	BEL	DREDGE	0	0	0	0	0	15	16	0	12	0	9
IIc	SOL	7e	BEL	OTTER		0	0	0	0	0	0	49	132	155	121
IIc	SOL	7e	ENG	3A	40	128	142	141	130	137	133	151	164	189	168
IIc	SOL	7e	ENG	3B	5	6	7	48	67	87	27	42	70	25	46
IIc	SOL	7e	ENG	BEAM	0	152	122	0	0	364	0	0	0	450	101
IIc	SOL	7e	ENG	DEM_SEINE	0			0	0			0	0	0	0
IIc	SOL	7e	ENG	DREDGE	6	12	12	11	11	8	15	14	12	11	12
IIc	SOL	7e	ENG	GILL	0	0	0	0	0	11	11	0	0	0	0
IIc	SOL	7e	ENG	LONGLINE	0	0		0	0	0	0	0	0	0	0
IIc	SOL	7e	ENG	OTTER	9	15	19	21	17	13	12	11	16	21	16
IIc	SOL	7e	ENG	PEL_SEINE	0	0	0	0	0	0	0		0		0
IIc	SOL	7e	ENG	PEL_TRAWL	0		0		0						0
IIc	SOL	7e	ENG	POTS	0	0	0	0	0	0		0	0	0	0
IIc	SOL	7e	ENG	TRAMMEL	0	0	0	0	0	0	0		0	0	0
IIc	SOL	7e	FRA	3A	132	115	107	103	225	224	208	305	289	377	311
IIc	SOL	7e	FRA	3B	38	74	32	48	62	62	62	157	113	110	128
IIc	SOL	7e	FRA	BEAM	168	209	0	0	0	0	684	0	0	0	0
IIc	SOL	7e	FRA	DEM_SEINE	0	0	0	0	0	0	0	6			3
IIc	SOL	7e	FRA	DREDGE	2	3	2	3	6	6	1	2	3	1	2
IIc	SOL	7e	FRA	GILL	5	8	0	0	0	0	4	2	2	0	1
IIc	SOL	7e	FRA	LONGLINE	0	0	0	0	0	0	0	0	0	0	0
IIc	SOL	7e	FRA	NONE	59	52	94	0	0	0	0		0	0	0
IIc	SOL	7e	FRA	OTTER	16	21	20	20	24	24	21	24	20	24	23
IIc	SOL	7e	FRA	PEL_SEINE									0	0	0
IIc	SOL	7e	FRA	PEL_TRAWL	0	0	0	0	0	0	0	1	1	0	1
IIc	SOL	7e	FRA	POTS	0	2	0	1	0	0	8	3	2	1	2
IIc	SOL	7e	FRA	TRAMMEL	42	35	0	2	4	4	2	2	2	0	1
IIc	SOL	7e	GBG	OTTER	0				0	0	0	0	0	0	0
IIc	SOL	7e	GBJ	3A	33	157	0	0	0	0	0	0	0	0	0
IIc	SOL	7e	GBJ	BEAM	0	0	0	0	0	0	0	0	0	0	0
IIc	SOL	7e	GBJ	OTTER	0		0	0	0	0	0		0	0	0
IIc	SOL	7e	IOM	DREDGE	0	0		0		0	0	0	0	0	0
IIc	SOL	7e	IRL	3A	0		154	120	0		0	0	0	0	0
IIc	SOL	7e	IRL	BEAM	0	0	0	0	0	0	0	0	0	0	0
IIc	SOL	7e	IRL	DREDGE		0				0	0				0
IIc	SOL	7e	IRL	OTTER		0	0	0		0	0	0	0		0
IIc	SOL	7e	NED	DREDGE	0		0					0	0	0	0
IIc	SOL	7e	NIR	OTTER	0	0	0	0	0	0		0	0	0	0
IIc	SOL	7e	SCO	DEM_SEINE	0	0						0	0		0
IIc	SOL	7e	SCO	DREDGE	2	4	8	9	19	4	3	0	2	2	2
IIc	SOL	7e	SCO	OTTER	0					9	0	4	6	4	5

Table 5.8.4.2 Western Channel - Sole CPUE (g/(kW*days)) by derogation and year, 2004-2013. Note: Discard information for area 7e is sparse and therefore LPUE is provided in the table. (CPUE is presented in the figures).

ANNEX	SPECIES	REG AREA COD	REG GEAR COD	SPECON	LPUE 2004	LPUE 2005	LPUE 2006	LPUE 2007	LPUE 2008	LPUE 2009	LPUE 2010	LPUE 2011	LPUE 2012	LPUE 2013	LPUE 2011-2013
IIc	SOL	7e	3a	none	42	113	126	118	119	129	129	142	151	173	155
IIc	SOL	7e	3b	none	33	63	29	48	62	65	53	123	101	77	102
IIc	SOL	7e	BEAM	none	82	197	100	0	0	48	26	0	0	38	12
IIc	SOL	7e	DEM_SEINE	none							0	1	0	0	1
IIc	SOL	7e	DREDGE	none	3	5	4	5	8	6	6	7	7	6	7
IIc	SOL	7e	GILL	none	4	7	0	0	0	2	5	2	2	0	1
IIc	SOL	7e	LONGLINE	none	0	0	0	0	0	0	0	0	0	0	0
IIc	SOL	7e	none	none	59	52	94	0	0	0	0		0	0	0
IIc	SOL	7e	OTTER	none	15	20	20	20	23	22	19	21	20	23	21
IIc	SOL	7e	PEL_SEINE	none							0		0	0	0
IIc	SOL	7e	PEL_TRAWL	none	0	0	0	0	0	0	0	1	0	0	0
IIc	SOL	7e	POTS	none	0	1	0	0	0	0	5	2	1	0	1
IIc	SOL	7e	TRAMMEL	none	38	35	0	2	4	4	2	2	2	0	1

Table 5.8.4.3 Western Channel - plaice CPUE (g/(kW*days)) by derogation, Country and year, 2004-2013. Note: Discard information for area 7e is sparse and therefore LPUE is provided in the table. (CPUE is presented in the figures).

ANNEX	SPECIES	REG AREA	country	reg_gear_cod	LPUE 2004	LPUE 2005	LPUE 2006	LPUE 2007	LPUE 2008	LPUE 2009	LPUE 2010	LPUE 2011	LPUE 2012	LPUE 2013	LPUE 2011-2013
IIc	PLE	7e	BEL	3A	73	70	81	99	113	145	130	262	223	179	224
IIc	PLE	7e	BEL	DEM_SEINE	0	0	0	0	0	0	0	39	14	25	22
IIc	PLE	7e	BEL	DREDGE	0	0	0	0		0					0
IIc	PLE	7e	BEL	OTTER		0	57	0	31	0	39	296	237	618	386
IIc	PLE	7e	ENG	3A	215	217	209	160	166	238	248	245	255	294	264
IIc	PLE	7e	ENG	3B	5	0	0	0	10	29	9	17	35	17	23
IIc	PLE	7e	ENG	BEAM	775	152	122	332	0	0	0	165	0	450	203
IIc	PLE	7e	ENG	DEM_SEINE	0	0	0	0	0	0	0	15	11	16	13
IIc	PLE	7e	ENG	DREDGE	6	7	4	1	2	2	3	4	2	7	4
IIc	PLE	7e	ENG	GILL	0	0	0	0	0	11	11	0	0	0	0
IIc	PLE	7e	ENG	LONGLINE	0	0	0	0	0	0	0	0	0	0	0
IIc	PLE	7e	ENG	OTTER	71	73	111	73	80	81	127	170	158	149	159
IIc	PLE	7e	ENG	PEL_SEINE	0	0	0	0	0	0	0		0		0
IIc	PLE	7e	ENG	PEL_TRAWL		0		0	0	0	0	0		0	0
IIc	PLE	7e	ENG	POTS	0		0	0	0	0	0	0	0	0	0
IIc	PLE	7e	ENG	TRAMMEL	0	0	0	0	0	0	0	0	0	0	0
IIc	PLE	7e	FRA	3A	107	38	21	16	34	36	82	115	84	66	97
IIc	PLE	7e	FRA	3B	14	25	11	8	5	5	20	18	17	11	16
IIc	PLE	7e	FRA	BEAM	0	38	0	0	0	0	0	0	0	0	0
IIc	PLE	7e	FRA	DEM_SEINE	0	0	0	0	0	0	15	24	61	21	35
IIc	PLE	7e	FRA	DREDGE	1	1	1	1	2	2	0	1	1	1	1
IIc	PLE	7e	FRA	GILL	0	2	0	0	0	0	0	0	0	0	0
IIc	PLE	7e	FRA	LONGLINE	0	0	0	0	0	0	0	0	0	0	0
IIc	PLE	7e	FRA	NONE	30	0		0	0	0	0		0	0	0
IIc	PLE	7e	FRA	OTTER	12	13	14	13	19	19	17	22	20	23	22
IIc	PLE	7e	FRA	PEL_SEINE				0					3	0	1
IIc	PLE	7e	FRA	PEL_TRAWL	0	0	0	0	0	0	0	0	0	0	0
IIc	PLE	7e	FRA	POTS		0		0			0	0	0	0	0
			FRA	TRAMMEL	0	9	0	0	2	2	0	2	2	0	1
IIc	PLE	7e	GBG	OTTER	0				0	0	0	0	337	0	262
IIc	PLE	7e	GBJ	3A	152	66	0	0	0	0	0	0	0	0	0
IIc	PLE	7e	GBJ	BEAM	0	0	0	0	0	0	0	0	0	0	0
IIc	PLE	7e	GBJ	OTTER	0	0	52	0	0	0	0	0	0	0	0
IIc	PLE	7e	IRL	3A			0	0			0	0	0	0	0
IIc	PLE	7e	IRL	BEAM	0	0	0	0	0	0	0	0	0	0	0
IIc	PLE	7e	IRL	DREDGE		0				0	0				0
IIc	PLE	7e	IRL	OTTER		0	0	0		0	0	0	0		0
IIc	PLE	7e	NED	DEM_SEINE	0		0	0	0	9	4	12	20	15	15
IIc	PLE	7e	NED	OTTER		0			0	0	0	0	0	0	0
IIc	PLE	7e	NIR	OTTER	0	0	0	0	0	0		0	0	0	0
IIc	PLE	7e	SCO	3A	0	0	0	0	0	0	0	0	0	0	0
IIc	PLE	7e	SCO	DEM_SEINE	0	0	0	0	0	13		0	0		0
IIc	PLE	7e	SCO	DREDGE	0	0	0	0	2	2	0	0	0	0	0
IIc	PLE	7e	SCO	OTTER	0		0			26	7	25	40	48	37

Table 5.8.4.4 Western Channel - Plaice CPUE (g/(kW*days)) by derogation and year, 2004-2013. Note: Discard information for area 7e is sparse and therefore LPUE is provided in the table. (CPUE is presented in the figures).

ANNEX	SPECIES	REG AREA	COD	reg_gear_cod	SPECON	LPUE 2004	LPUE 2005	LPUE 2006	LPUE 2007	LPUE 2008	LPUE 2009	LPUE 2010	LPUE 2011	LPUE 2012	LPUE 2013	LPUE 2011-2013
IIc	PLE	7e		3A	none	182	178	177	136	152	215	215	239	243	271	250
IIc	PLE	7e		3B	none	12	21	9	7	5	8	17	18	22	13	18
IIc	PLE	7e		BEAM	none	82	61	100	332	0	0	0	31	0	38	24
IIc	PLE	7e		DEM_SEINE	none	0	0	0	0	0	10	6	14	24	17	18
IIc	PLE	7e		DREDGE	none	2	2	2	1	2	2	1	2	1	3	2
IIc	PLE	7e		GILL	none	0	1	0	0	0	2	2	0	0	0	0
IIc	PLE	7e		LONGLINE	none	0	0	0	0	0	0	0	0	0	0	0
IIc	PLE	7e		NONE	none	30	0		0	0	0	0		0	0	0
IIc	PLE	7e		OTTER	none	21	21	26	21	30	30	38	48	48	49	48
IIc	PLE	7e		PEL_SEINE	none				0			0		3	0	1
IIc	PLE	7e		PEL_TRAWL	none	0	0	0	0	0	0	0	0	0	0	0
IIc	PLE	7e		POTS	none	0	0	0	0	0	0	0	0	0	0	0
IIc	PLE	7e		TRAMMEL	none	0	9	0	0	2	2	0	2	2	0	1

Table 5.8.4.5 Western Channel - Cod CPUE (g/(kW*days)) by derogation, Country and year, 2004-2013. Note: Discard information for area 7e is sparse and therefore LPUE is provided in the table. (CPUE is presented in the figures).

ANNEX	SPECIES	REG AREA	country	reg_gear_cod	LPUE 2004	LPUE 2005	LPUE 2006	LPUE 2007	LPUE 2008	LPUE 2009	LPUE 2010	LPUE 2011	LPUE 2012	LPUE 2013	LPUE 2011-2013
IIc	COD	7e	BEL	3A	3	4	8	6	9	17	10	12	11	9	11
IIc	COD	7e	BEL	DEM_SEINE	0	0	0	0	0	0	49	235	96	50	108
IIc	COD	7e	BEL	OTTER			0	0	0				0	0	0
IIc	COD	7e	ENG	3A	7	8	9	14	11	10	11	17	23	18	19
IIc	COD	7e	ENG	3B	58	56	85	116	38	67	64	127	167	119	137
IIc	COD	7e	ENG	BEAM		0	0		0	0	0	0	0		0
IIc	COD	7e	ENG	DEM_SEINE	0		0	0	0	0	29	15	21	16	17
IIc	COD	7e	ENG	DREDGE	0	0	0	0	0	0	0	0	0	0	0
IIc	COD	7e	ENG	GILL	11	27	23	24	46	54	44	26	30	0	22
IIc	COD	7e	ENG	LONGLINE	0	0	0	0	0	0	0	0	0	0	0
IIc	COD	7e	ENG	OTTER	21	22	23	45	41	24	32	37	49	52	46
IIc	COD	7e	ENG	PEL_SEINE	0	0	0	0	0	0	0		0		0
IIc	COD	7e	ENG	PEL_TRAWL	0			0	0	0	0	0	0	0	0
IIc	COD	7e	ENG	POTS	0	0	0	0	0	0	0	0	0	0	0
IIc	COD	7e	ENG	TRAMMEL	0	0	0	0	0	0	0	30	49	48	40
IIc	COD	7e	FRA	3A	3	0	3	0	0	0	0	0	0		0
IIc	COD	7e	FRA	3B	3	4	2	2	5	5	10	50	43	11	38
IIc	COD	7e	FRA	BEAM		0		0	0	0				0	0
IIc	COD	7e	FRA	DEM_SEINE	0	0	0	0	0	0	29	54	51	150	67
IIc	COD	7e	FRA	DREDGE	0	0	0	0	1	1	2	0	0		0
IIc	COD	7e	FRA	GILL	5	2	4	1	2	2	2	6	2	0	3
IIc	COD	7e	FRA	LONGLINE	11	0	33	2	4	4	0	20	5	0	9
IIc	COD	7e	FRA	NONE				0			0		0	0	0
IIc	COD	7e	FRA	OTTER	20	26	34	42	55	55	54	98	88	57	81
IIc	COD	7e	FRA	PEL_SEINE									38	14	18
IIc	COD	7e	FRA	PEL_TRAWL	0	0	0	0	0	0	4	1	2	0	1
IIc	COD	7e	FRA	POTS	0						0	1	0		0
IIc	COD	7e	FRA	TRAMMEL	8	3	5	3	6	6	12	15	25	8	16
IIc	COD	7e	GBG	OTTER	0		0	0	0		0	0	0	0	0
IIc	COD	7e	GBJ	3A	19	17	0	0	0	0	0	0	0	0	0
IIc	COD	7e	GBJ	BEAM	0	0	0	0	0	0	0	0	0	0	0
IIc	COD	7e	GBJ	OTTER	0		0	0	0	0	0	0	0	0	0
IIc	COD	7e	IRL	3A	0	0	0	120	0		0	0	0	0	0
IIc	COD	7e	IRL	BEAM	0	0	0	0	0	0	0	0	0	0	0
IIc	COD	7e	IRL	OTTER	0	0	0	0		0	0	0	343	0	162
IIc	COD	7e	NED	DEM_SEINE	0	11	25	18	0	19	12	27	33	15	26
IIc	COD	7e	NED	OTTER	0	0	0		0	0	0	0	0	0	0
IIc	COD	7e	NIR	OTTER		0	0	0	0	0	0	0	0	0	0
IIc	COD	7e	SCO	3A	0	0	0	273	0		0	0	0	0	0
IIc	COD	7e	SCO	3B	0	0				0	0	0	0	0	0
IIc	COD	7e	SCO	DEM_SEINE	0	0	23	18		13		14			11
IIc	COD	7e	SCO	DREDGE		0	0	0	0	0	0				0
IIc	COD	7e	SCO	OTTER	0					9	7	41	75	35	48

Table 5.8.4.6 Western Channel - Cod CPUE (g/(kW*days)) by derogation and year, 2004-2013. Note: Discard information for area 7e is sparse and therefore LPUE is provided in the table. (CPUE is presented in the figures).

ANNEX	SPECIES	REG AREA COD	REG GEAR COD	SPECON	LPUE 2004	LPUE 2005	LPUE 2006	LPUE 2007	LPUE 2008	LPUE 2009	LPUE 2010	LPUE 2011	LPUE 2012	LPUE 2013	LPUE 2011-2013
IIc	COD	7e	3a	none	7	7	9	12	10	10	10	15	20	16	17
IIc	COD	7e	3b	none	11	12	12	14	10	14	24	73	77	53	69
IIc	COD	7e	BEAM	none	0	0	0		0	0	0	0	0		0
IIc	COD	7e	DEM_SEINE	none	0	11	25	18	0	16	19	36	42	41	39
IIc	COD	7e	DREDGE	none	0	0	0	0	0	0	1	0	0	0	0
IIc	COD	7e	GILL	none	6	4	7	4	8	9	8	8	4	0	4
IIc	COD	7e	LONGLINE	none	8	0	26	2	3	4	0	17	4	0	7
IIc	COD	7e	none	none				0			0		0	0	0
IIc	COD	7e	OTTER	none	20	25	33	42	52	48	48	85	80	55	74
IIc	COD	7e	PEL_SEINE	none							0		38	14	18
IIc	COD	7e	PEL_TRAWL	none	0	0	0	0	0	0	2	1	1	0	0
IIc	COD	7e	POTS	none	0	0	0	0	0	0	0	0	0	0	0
IIc	COD	7e	TRAMMEL	none	8	3	5	3	6	6	11	16	26	10	17

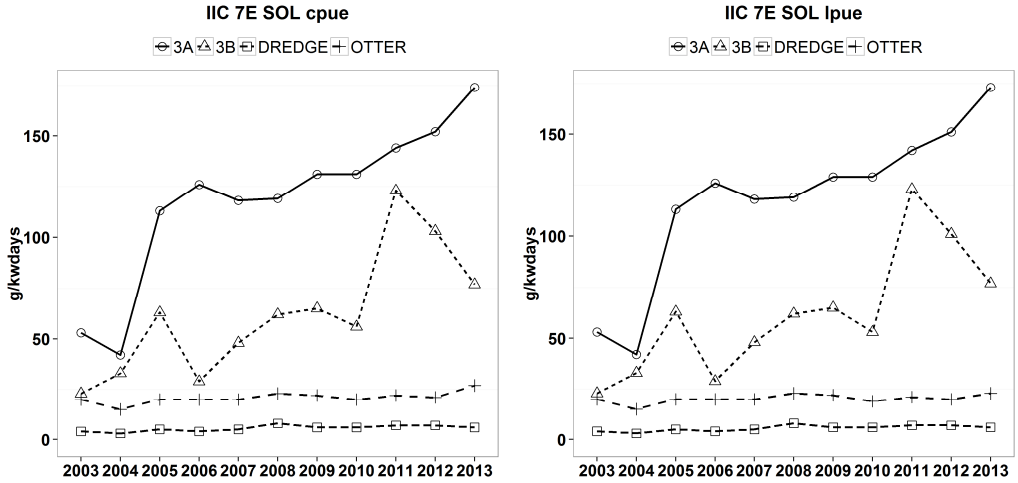


Figure 5.8.4.1 Western Channel - Sole – CPUE (left) and LPUE (right) (g/(kW*days)) by derogation and year, 2003-2013.

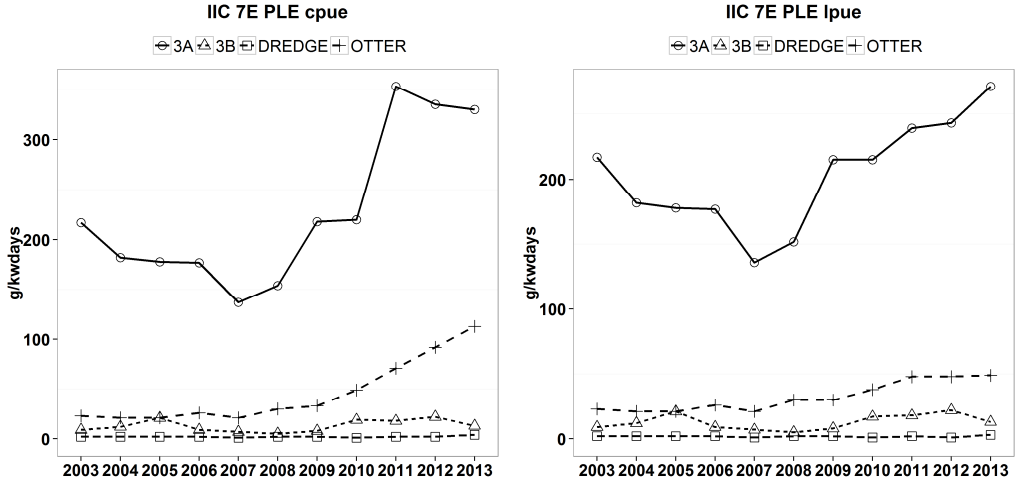


Figure 5.8.4.2 Western Channel - Plaice – CPUE (left) and LPUE (right) (g/(kW*days)) by derogation and year, 2003-2013.

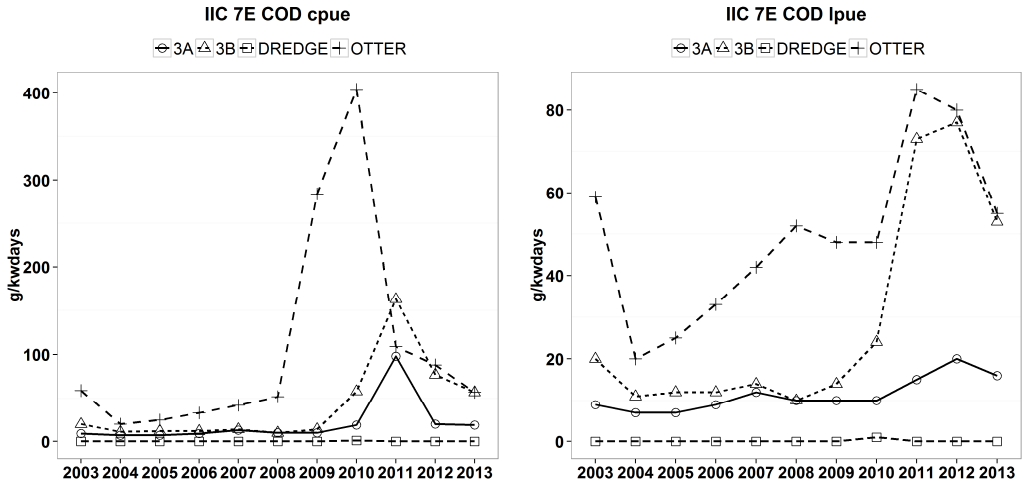


Figure 5.8.4.3 Western Channel - Cod – CPUE (left) and LPUE (right) (g/(kW*days)) by derogation and year, 2003-2013.

5.8.5 ToR 2 Information on small boats (<10m)

5.8.5.1 Fishing effort of small boats by Member State

It should be noted that not all countries have submitted information and that the total figures are therefore likely to give an underestimation of effort and catches of this vessel category.

Table 5.8.5.1.1 provides an overview of the effort deployed by vessels >10m (regulated and non-regulated gear) and vessels <10m in the Western Channel for the period 2004-2013. The effort from the vessels <10m fluctuates between 13% and 25% of the effort deployed by the vessels >10m.

Table 5.8.5.1.1 Western Channel - Trend in nominal effort (kW*days at sea) by derogations given in Table 1 of Annex IIC (Coun. Reg. 43/2014), unregulated gear and vessels <10m, 2004-2013.

ANNEX	REG AREA	REG GEAR	SPECON	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
IIc	7e	3a	none	4402055	4316077	4209145	4199088	3604936	2696024	2914372	3033848	3161329	2735464
IIc	7e	3b	none	1442948	1124945	1391244	1026522	729036	718465	413844	398590	416135	299882
IIc	7e	none	none	22869301	23734215	25380299	25178852	18280320	18331845	19213237	19017024	18872730	18966165
Sum_O10m	**7e**			**28714304**	**29175237**	**30980688**	**30404462**	**22614292**	**21746334**	**22541453**	**22449462**	**22450194**	**22001511**
Sum_U10m	**7e**			**4723799**	**3698241**	**5633713**	**5463330**	**4315920**	**3878714**	**4903821**	**5615040**	**5560087**	**5041084**
%-U10m	**7e**			**16**	**13**	**18**	**18**	**19**	**18**	**22**	**25**	**25**	**23**

5.8.5.2 Catches (landings and discards) of sole and associated species by small boats by Member State

Table 5.8.5.2.1 gives a preliminary overview of the catches of some main species (anglerfish, cod, haddock, hake, Nephrops, plaice, saithe, sole and whiting in area 7e for vessels <10m (2004-2013). STECF EWG would like to mention that although these figures are underestimates, they indicate that between 7% and 14% of the sole catches are taken by vessels < 10m.

More detailed information for vessels <10 meters were available only from France for the period 2003-2007. This information was presented in the 2008 report and is not repeated here. An update will be provided once new data become available.

Table 5.8.5.2.1 Western Channel – Overview of anglerfish, cod, haddock, hake, Nephrops, plaice, saithe, sole and whiting catches by vessels <10m, 2004-2013.

ANNEX	REG_ARE/	SPECIES	REG_GEAR	2004 L	2005 L	2006 L	2007 L	2008 L	2009 L	2010 L	2011 L	2012 L	2013 L
IIc	7e	ANF	3a	769	795	1014	1087	959	915	1345	1413	1293	1170
IIc	7e	ANF	3b	824	619	459	317	301	302	13	67	99	50
IIc	7e	ANF	none	2802	3416	2899	3258	2624	2690	1104	2258	1925	2619
SUM_O10m				4395	4830	4371	4662	3885	3907	2461	3738	3317	3839
SUM_U10m				262	217	201	287	238	226	179	197	240	277
%_U10m				6	4	5	6	6	6	7	5	7	7
IIc	7e	COD	3a	30	33	36	50	37	28	31	45	63	45
IIc	7e	COD	3b	16	15	15	14	8	11	10	29	31	15
IIc	7e	COD	none	232	304	420	513	451	434	432	797	672	457
SUM_O10m				277	352	470	577	496	472	473	871	766	517
SUM_U10m				27	18	40	56	36	47	84	141	174	67
%_U10m				10	5	9	10	7	10	18	16	23	13
IIc	7e	HAD	3a	13	11	17	22	30	38	54	128	170	35
IIc	7e	HAD	3b	4	8	3	2	1	1	3	2	3	7
IIc	7e	HAD	none	384	363	492	703	1024	1167	1440	3971	3031	2026
SUM_O10m				401	381	513	728	1055	1206	1498	4101	3204	2068
SUM_U10m				4	7	8	27	37	28	59	96	148	86
%_U10m				1	2	1	4	4	2	4	2	5	4
IIc	7e	HKE	3a	6	6	6	4	10	13	7	5	3	4
IIc	7e	HKE	3b	113	98	59	19	9	3	8	12	2	17
IIc	7e	HKE	none	179	206	119	89	102	109	97	159	154	121
SUM_O10m				298	310	185	112	121	125	111	175	159	143
SUM_U10m				2	2	1	1	3	5	5	5	2	4
%_U10m				1	1	1	1	3	4	5	3	1	3
IIc	7e	NEP	3a	0	0	0	0	0	0		0	0	0
IIc	7e	NEP	3b		0	0	0	0	0	0	0	0	0
IIc	7e	NEP	none	8	13	6	10	9	9	17	16	15	3
SUM_O10m				8	13	7	10	9	9	17	16	15	3
SUM_U10m				0	0	0		0	3	1	1	0	2
%_U10m				0	0	0	0	0	39	3	5	1	50
IIc	7e	PLE	3a	801	767	743	571	547	581	627	726	767	743
IIc	7e	PLE	3b	19	25	13	8	4	6	7	8	9	4
IIc	7e	PLE	none	243	280	323	257	261	275	328	449	388	403
SUM_O10m				1063	1071	1079	836	812	861	962	1183	1164	1150
SUM_U10m				82	67	131	105	75	66	106	112	161	160
%_U10m				8	6	12	13	9	8	11	9	14	14
IIc	7e	POK	3a	1	0	0	0	0	0	0	0	0	0
IIc	7e	POK	3b	11	17	3	1	1	3	5	3	5	9
IIc	7e	POK	none	6	3	3	1	1	1	16	2	1	3
SUM_O10m				18	20	6	3	3	5	21	4	6	11
SUM_U10m				1	1	1	1	1	2	2	2	3	2
%_U10m				6	4	15	29	26	30	9	47	52	15
IIc	7e	SOL	3a	185	487	530	496	431	348	375	430	478	473
IIc	7e	SOL	3b	48	71	41	49	45	48	22	49	42	23
IIc	7e	SOL	none	193	302	269	274	233	222	197	226	189	208
SUM_O10m				426	860	841	819	709	619	594	706	709	704
SUM_U10m				59	75	87	86	51	44	69	86	101	99
%_U10m				14	9	10	10	7	7	12	12	14	14
IIc	7e	WHG	3a	61	53	45	45	48	39	30	32	42	31
IIc	7e	WHG	3b	7	5	10	8	7	6	10	16	12	9
IIc	7e	WHG	none	1369	1537	1329	1469	1526	1729	1781	2396	1993	2373
SUM_O10m				1437	1595	1384	1522	1581	1774	1820	2445	2048	2413
SUM_U10m				79	55	73	123	128	141	155	123	155	143
%_U10m				6	3	5	8	8	8	9	5	8	6

5.8.6 ToR 3 Evaluation of fully documented fisheries FDF

5.8.6.1 Fishing effort of FDF by Member State and fisheries in comparison with fisheries not working under FDF provisions

Only England had vessels operating under FDF fisheries in 2012 and 2013. In 2012 and 2013, 7 and 9 vessels respectively were operational in the FDF fisheries using the regulated beam trawl gear (3a) and one vessel using the unregulated beam trawl gear. The total number of English vessels operating these gears are 44 and 2 respectively.

Effort deployed by the regulated beam trawls (3a) FDF, accounts for 22% and 29% of the total English effort for that gear in 2012 and 2013 respectively. The unregulated beamers fishing with a FDF licence represented 16% and 58% of the total English effort for that gear in 2012 and 2013 respectively (Table 5.8.6.1.1). Dredges account for about 3% in 2013.

The effort of the FDF fisheries as a percentage of the total deployed effort by the regulated beamers (3a) and unregulated beamers amount to 17% and 1% respectively in 2012 and 24% and 5% respectively in 2013 (Table 5.8.6.1.1). Dredges account for about 1% in 2013.

Table 5.8.6.1.1 Western Channel: (A part 1) total fishing effort for countries with Fully Documented Fisheries (FDF, REM/CCTV), (B) FDF (REM/CCTV) nominal fishing effort (kW*days) and (A part 2, C) the percentage of total effort attributable to FDFs for 2012 and 2013

Table A, part 1

COUNTRY	GEAR	2012	2013
ENG	3a	2474852	2250479
	3b	113947	117863
	BEAM	1587	2223
	DEM_SEINE	95175	63778
	DREDGE	1745440	1712833
	GILL	33495	19738
	LONGLINE	35542	38699
	OTTER	1415239	1404014
	PEL_SEINE		9283
	PEL_TRAWL	551025	261012
	POTS	625564	708855
	TRAMMEL	20336	20675
	none		
ENG Total		7112202	6609452

Table B

COUNTRY	GEAR	2012	2013
ENG	3a	537367	661608
	3b		
	BEAM	251	1298
	DEM_SEINE		
	DREDGE		57284
	GILL		
	LONGLINE		
	OTTER		
	PEL_SEINE		
	PEL_TRAWL		
	POTS		
	TRAMMEL		
	none		
ENG Total		537618	720190

Table C

2012	2013
21.7%	29.4%
0.0%	0.0%
15.8%	58.4%
0.0%	0.0%
0.0%	3.3%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
7.6%	10.9%

Table A, part 2
Effort of all contries by gear

GEAR	2012	2013
3a	3161329	2735464
3b	416135	299882
BEAM	23258	26323
DEM_SEINE	453211	290151
DREDGE	4292450	3984119
GILL	507914	550685
LONGLINE	237950	278238
OTTER	7718110	7870251
PEL_SEINE	395244	511464
PEL_TRAWL	2449951	2612035
POTS	2252751	2342869
TRAMMEL	541891	496966
none		3064
Grand Total	22450194	22001511

Table B

GEAR	2012	2013
3a	537367	661608
3b		
BEAM	251	1298
DEM_SEINE		
DREDGE		57284
GILL		
LONGLINE		
OTTER		
PEL_SEINE		
PEL_TRAWL		
POTS		
TRAMMEL		
none		
Grand Total	537618	720190

Table C

2012	2013
17.0%	24.2%
0.0%	0.0%
1.1%	4.9%
0.0%	0.0%
0.0%	1.4%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
2.4%	3.3%

5.8.6.2 Catches (landings and discards) of sole and other species taken by FDF fisheries by Member State and fisheries in comparison with fisheries not working under FDF provisions

Only England had vessels operating under FDF fisheries in 2012 and 2013. The landings obligation only applied to sole. Catches of sole in 2012 and 2013 accounted in the regulated beam trawls (3a) for 27% and 35% respectively. In the unregulated beamers they accounted for 36% and 93% respectively (Table 5.8.6.2.1). The catches of sole from to FDF fisheries to the total international catches of the 3a regulated gears in 2012 and 2013 amounts for 23% and 32% respectively. The unregulated beamers amount to 28% and 93% respectively in these years (Table 5.8.6.2.1). In 2012, the UK FDF fisheries caught 15% of the total catches of sole, 11% of the total catches of turbot, 10% of the total catches of anglerfish, 8% of the total catches of plaice and 5% of the total catches of megrim. Other species separately, represent less than 3% of total catches by species in this area. In 2013, the UK FDF fisheries caught 26% of the total catches of brill, 23% of the total catches of plaice, 21% of the total catches of sole, 13% of the total catches of turbot, 9% of the total catches of squid, 9% of the total catches of anglerfish and 6% of the total catches of megrim. Other species separately, represent less than 5% of total catches by species in this area.

Table 5.8.6.2.1 Western Channel: (A part 1) total catches for sole for countries with Fully Documented Fisheries (FDF, REM/CCTV) (B) catches (tonnes), and (A part 2, C) the percentage of catches attributed to FDFs for 2012 and 2013.

Table A, part 1

COUNTRY	GEAR	2012	2013
ENG	3A	409.637	427.224
	3B	8.109	3.304
	BEAM	0.245	0.516
	DEM_SEINE	0.014	0.023
	DREDGE	21.034	19.523
	GILL	0.334	0.010
	LONGLINE	0.002	0.002
	NONE		0.077
	OTTER	22.656	29.462
	PEL_SEINE		
	PEL_TRAWL		
	POTS	0.008	0.052
	TRAMMEL		0.002
ENG Total		462	480

Table B

COUNTRY	GEAR	2012	2013
ENG	3A	109.665	150.874
	3B		
	BEAM	0.089	0.479
	DEM_SEINE		
	DREDGE		0.252
	GILL		
	LONGLINE		
	NONE		
	OTTER		
	PEL_SEINE		
	PEL_TRAWL		
	POTS		
	TRAMMEL		
ENG Total		110	152

Table C

2012	2013
26.8%	35.3%
0.0%	0.0%
36.3%	92.8%
0.0%	0.0%
0.0%	1.3%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
23.8%	31.6%

Table A, part 2
Sole catches of all contries by gear

GEAR	2012	2013
3A	479.934	474.537
3B	42.934	23.414
BEAM	0.315	0.516
DEM_SEINE	0.025	0.03
DREDGE	29.888	23.098
GILL	1.282	0.235
LONGLINE	0.021	0.022
NONE	0.000	0.077
OTTER	161.982	214.397
PEL_SEINE	0.323	0.39
PEL_TRAWL	0.671	0.142
POTS	3.016	0.583
TRAMMEL		0.121
Grand Total	720	738

Table B

GEAR	2012	2013
3a	109.665	150.874
3b		
BEAM	0.089	0.479
DEM_SEINE		
DREDGE		0.252
GILL		
LONGLINE		
OTTER		
PEL_SEINE		
PEL_TRAWL		
POTS		
TRAMMEL		
none		
Grand Total	110	152

Table C

2012	2013
22.9%	31.8%
0.0%	0.0%
28.3%	92.8%
0.0%	0.0%
0.0%	1.1%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
15.2%	20.6%

5.8.6.3 Comparative analysis of sole selectivity by FDF fisheries and non-FDF fisheries

STECF EWG 14-13 was unable to address this ToR due to the unavailability of the necessary information.

5.8.7 ToR 4 Spatio-temporal patterns in effective effort by fisheries

Figure 5.8.7.1 shows the spatial distribution of the effective fishing effort for beam trawl fleets with mesh size ≥80mm (3a) during the period 2003 to 2013. The pattern seems similar for the whole period with higher effort deployed south of Devon.

Figure 5.8.7.2 shows the spatial distribution of the effective fishing effort for static nets with mesh size <220mm (3b) during the period 2003 to 2013. The fishing effort pattern is rather homogeneous over the whole VIIe area and full time series with occasional higher densities of activities along the most southern point of the English coast and off the French coast from Saint-Malo.

Figure 5.8.7.3 shows the spatial distribution of the effective fishing effort for the unregulated beam trawl fleet with no mesh size provided or mesh size < 80mm during the period 2003 to 2013. Since 2008, the effort which was predominantly deployed on the English coast and the French coast north of Cherbourg, has substantially decreased in all rectangles and is now more evenly spread over the whole area.

Figure 5.8.7.4 shows the spatial distribution of the effective fishing effort for the unregulated demersal seine during the period 2003 to 2013. The years 2003 and 2004 only indicate activities in 1 rectangle. Since 2005 most effort deployed in the same rectangles off the English coast with a substantial increase in the last 5 years, especially south of Dorset up to the French coast.

Figure 5.8.7.5 shows the spatial distribution of the effective fishing effort for the unregulated dredges during the period 2003 to 2013. Most effort deployed off the English coast and off the coast of Saint Malo.

Figure 5.8.7.6 shows the spatial distribution of the effective fishing effort for the unregulated gill nets during the period 2003 to 2013. A similar pattern appears apparent of effort deployment for all years over almost the whole VIIe area, with higher concentrations on the most southern part of the English coast and off the coast of Saint-Malo. Since 2010 there appears to be less effort deployed along the French coast.

Figure 5.8.7.7 shows the spatial distribution of the effective fishing effort for the unregulated longlines during the period 2003 to 2013. Again, a similar pattern appears apparent of effort deployment for all years over almost the whole VIIe area, with the highest concentrations along the English coast off Brixham.

Figure 5.8.7.8 shows the spatial distribution of the effective fishing effort for the unregulated otter trawls during the period 2003 to 2013. From 2003 until 2013 a similar pattern appears apparent of effort deployment over almost the whole VIIe area with higher concentrations along the English coast and off the coast of Saint Malo.

Figure 5.8.7.9 shows the spatial distribution of the effective fishing effort for the unregulated pelagic seine during the period 2003 to 2013. Very sparse patches of effort deployment, predominantly along the French coast off Brest until 2009. Since then a more widely effort spread over the whole VIIe area with even higher concentrations off the French coast at Brest.

Figure 5.8.7.10 shows the spatial distribution of the effective fishing effort for the unregulated pelagic trawls during the period 2003 to 2013. A similar pattern appears apparent of effort deployment for all years over almost the whole VIIe area, with the highest concentrations on the English coast off Brixham.

Figure 5.8.7.11 shows the spatial distribution of the effective fishing effort for the unregulated pots during the period 2003 to 2013. A similar pattern appears apparent of effort deployment for all years, predominantly along the English coast and the French coast off Saint Malo.

Figure 5.8.7.12 shows the spatial distribution of the effective fishing effort for the unregulated trammel nets during the period 2003 to 2013. A similar pattern appears apparent of effort deployment for all years, with the highest concentrations predominantly off the French coast.

Figure 5.8.7.13 shows the spatial distribution of the effective fishing effort for the unregulated gear ("none-none"), gears without mesh size given during the period 2003 to 2013.A similar pattern of effort deployment for all years, predominantly off the French coast with some relatively higher values. For 2011 very high effort was deployed along the French coast and particularly off Brest. STECF notes that these relative high values only represent a very small amount of the total effort deployed in VIIe.

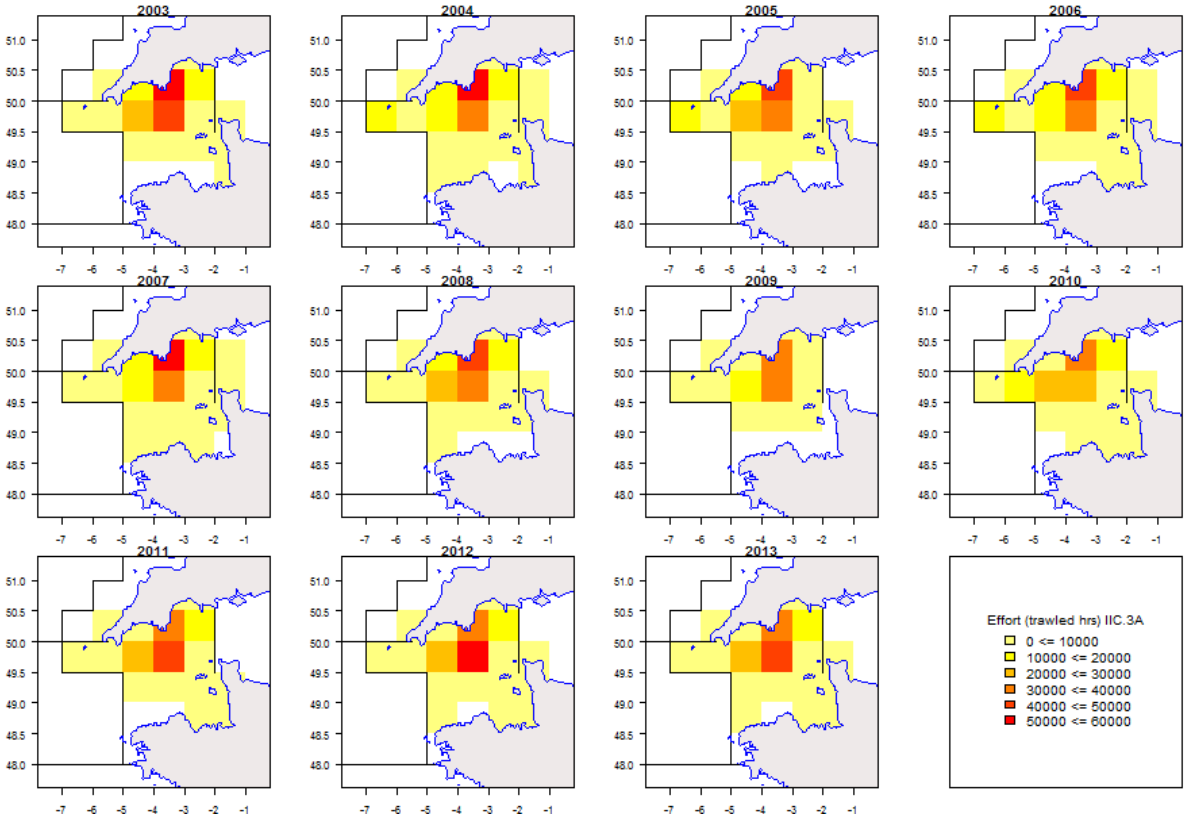


Figure 5.8.7.1. Western Channel. Spatial distribution of effective fishing effort (trawled hours) by ICES statistical rectangle for the Beam trawl fleet with mesh size ≥80 mm(3a), 2003-2013.

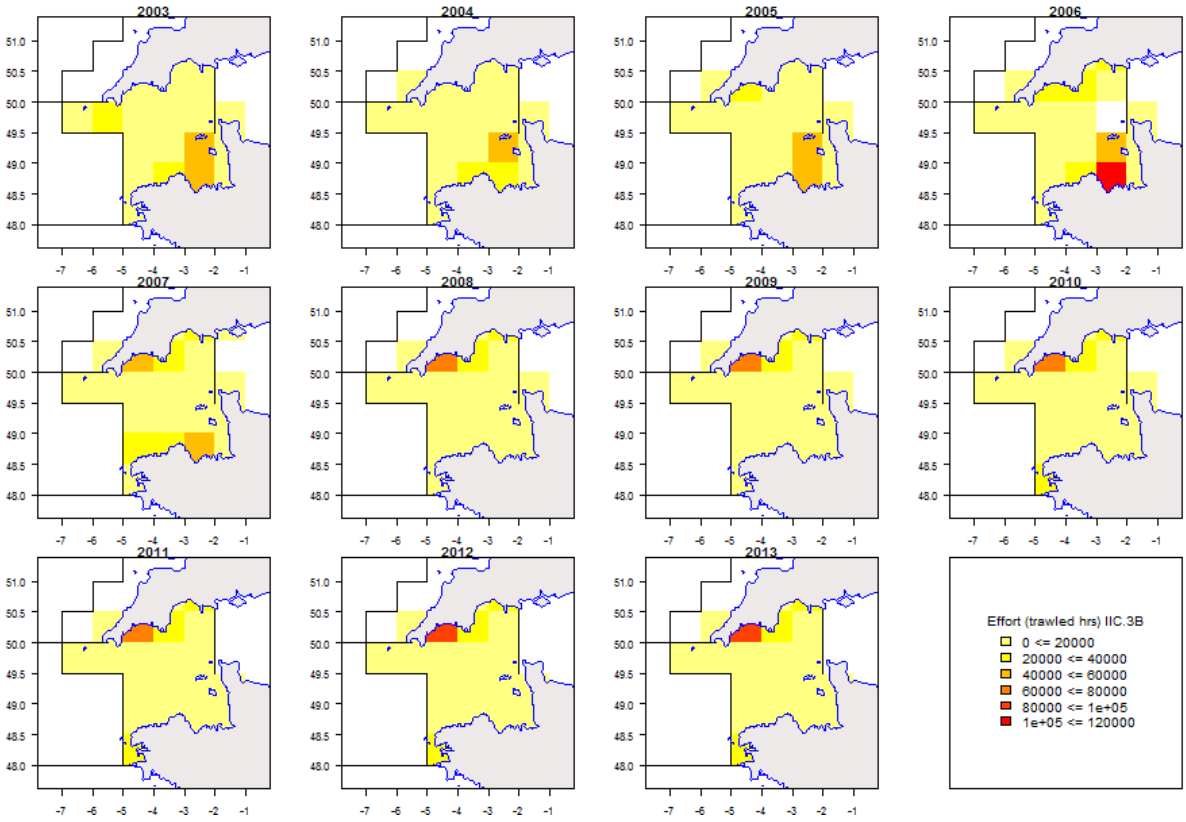


Figure 5.8.7.2. Western Channel. Spatial distribution of effective fishing effort (trawled hours) by ICES statistical rectangle for static nets with mesh size <220mm (3b), 2003-2013.

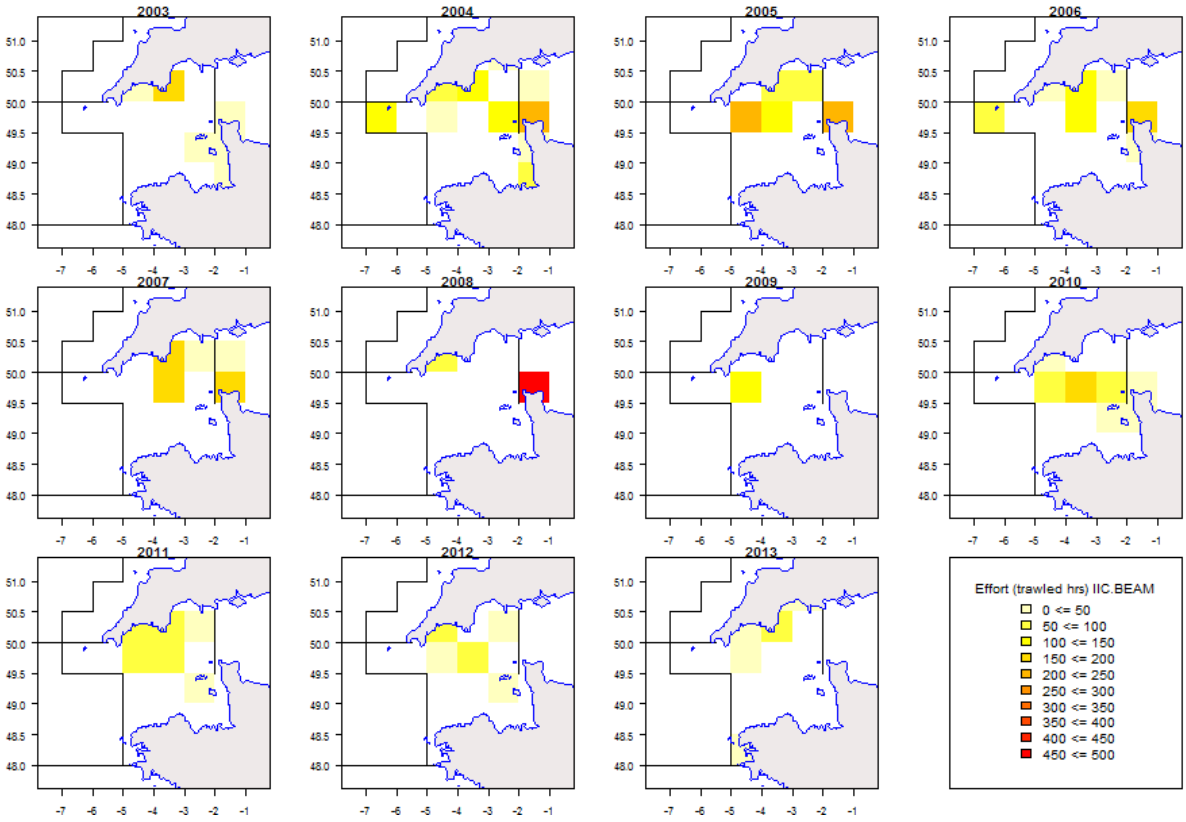


Figure 5.8.7.3. Western Channel. Spatial distribution of effective fishing effort (trawled hours) by ICES statistical rectangle for Beam trawl fleet with no mesh size provided or mesh size <80 mm, 2003-2013.

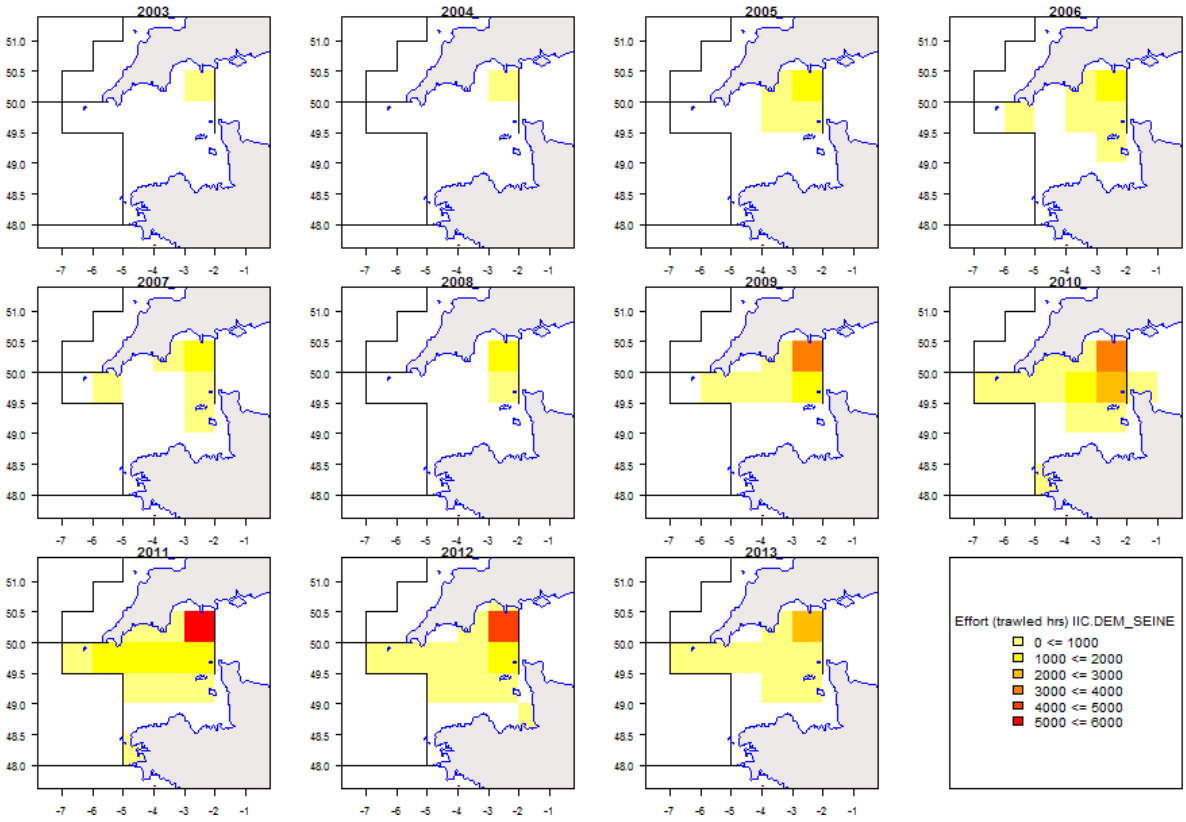


Figure 5.8.7.4. Western Channel. Spatial distribution of effective fishing effort (trawled hours) by ICES statistical rectangle for Demersal Seine, 2003-2013.

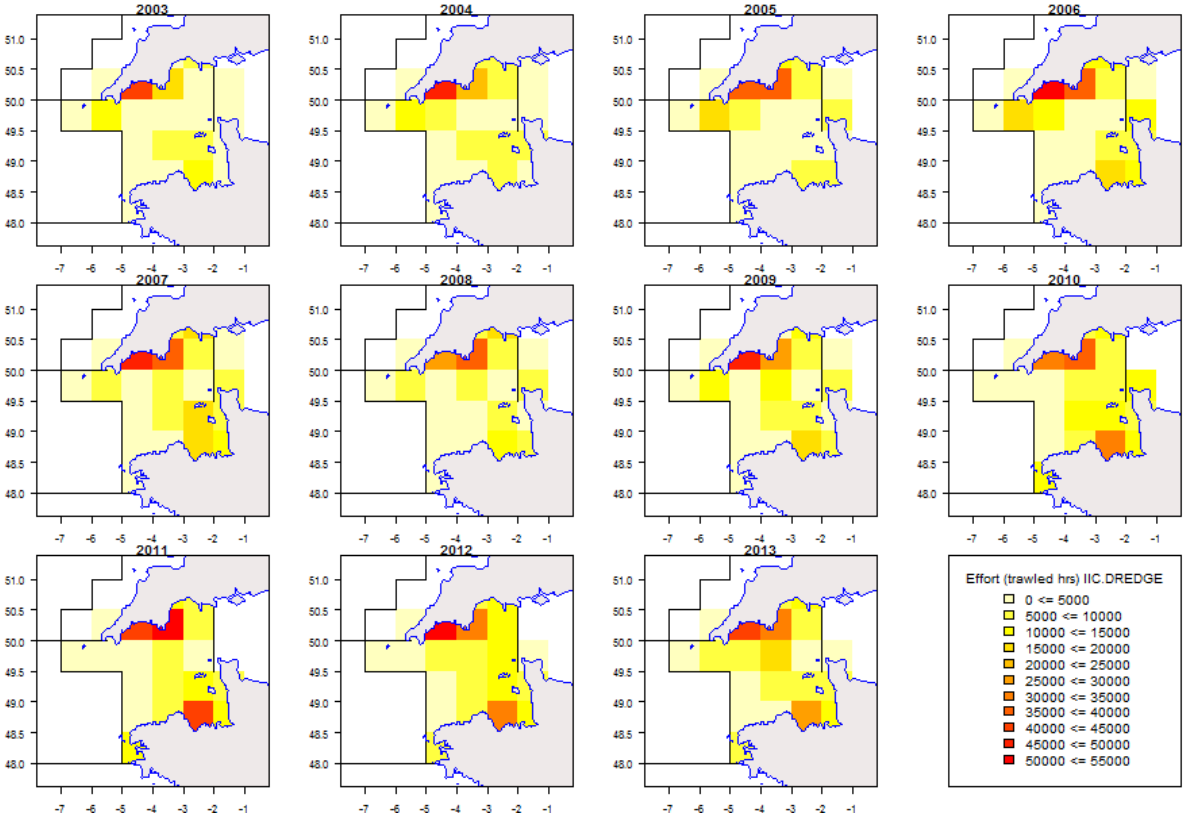


Figure 5.8.7.5. Western Channel. Spatial distribution of effective fishing effort (trawled hours) by ICES statistical rectangle for Dredges, 2003-2013.

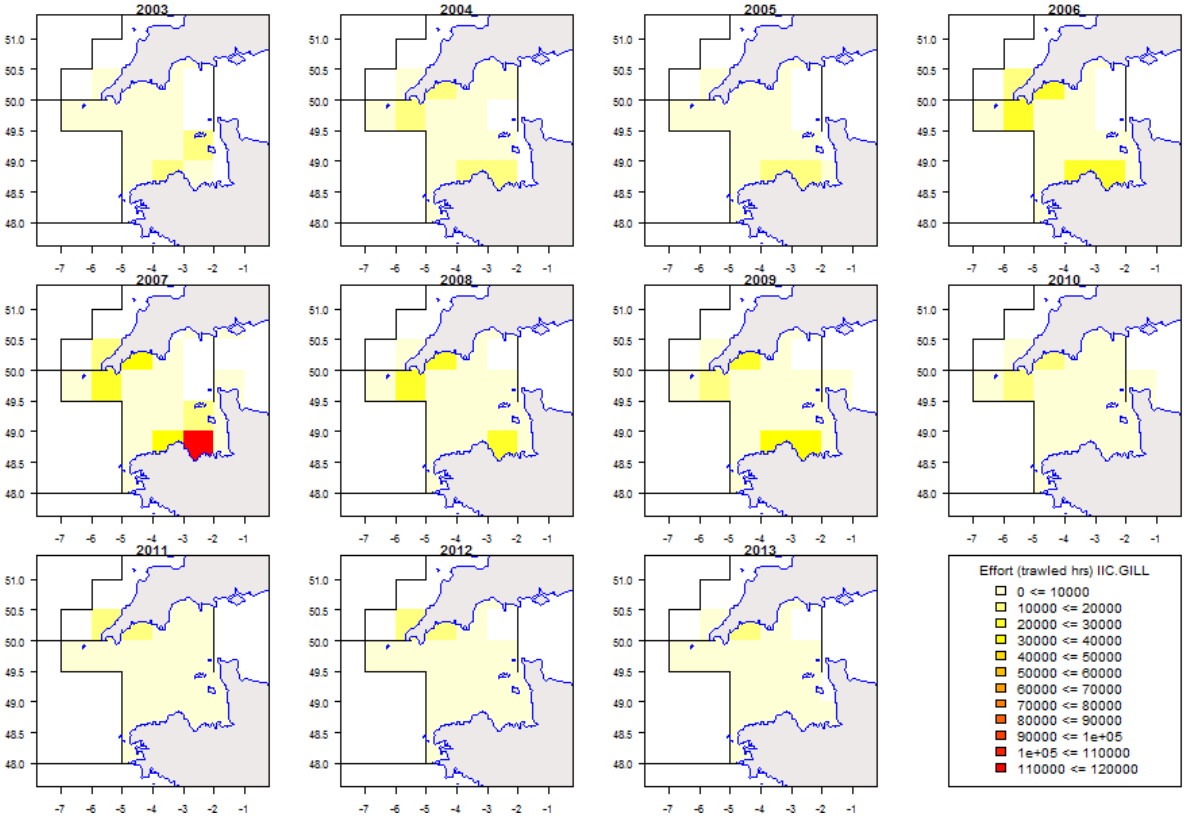


Figure 5.8.7.6. Western Channel. Spatial distribution of effective fishing effort (trawled hours) by ICES statistical rectangle for Gill nets, 2003-2013.

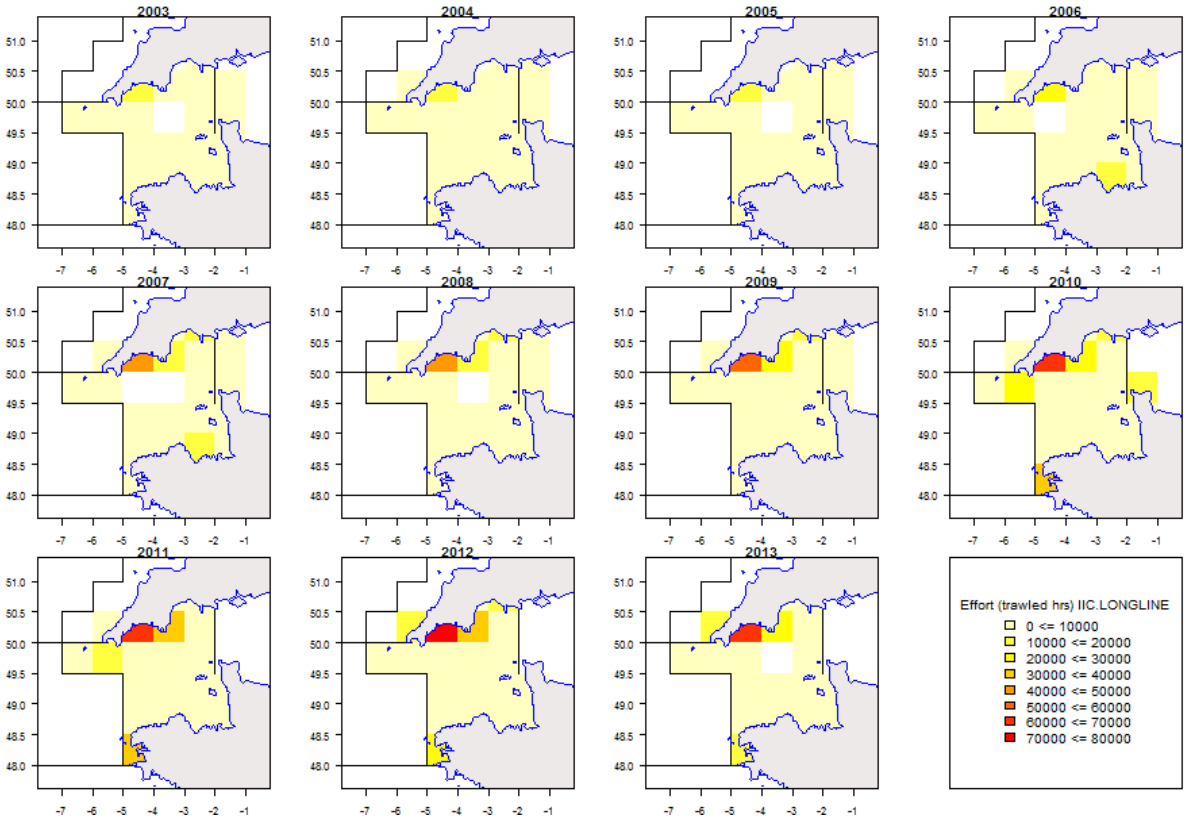


Figure 5.8.7.7. Western Channel. Spatial distribution of effective fishing effort (trawled hours) by ICES statistical rectangle for Longlines, 2003-2013.

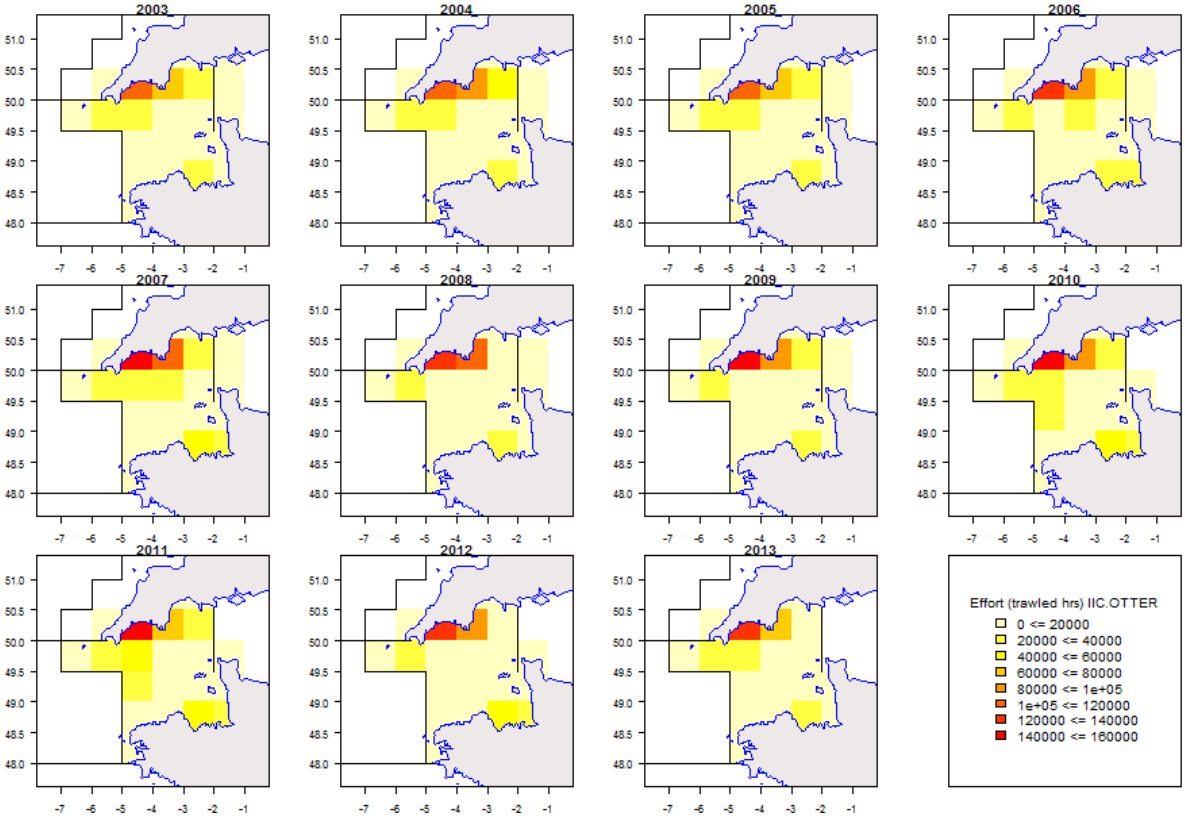


Figure 5.8.7.8. Western Channel. Spatial distribution of effective fishing effort (trawled hours) by ICES statistical rectangle for Otter Trawl, 2003-2013.

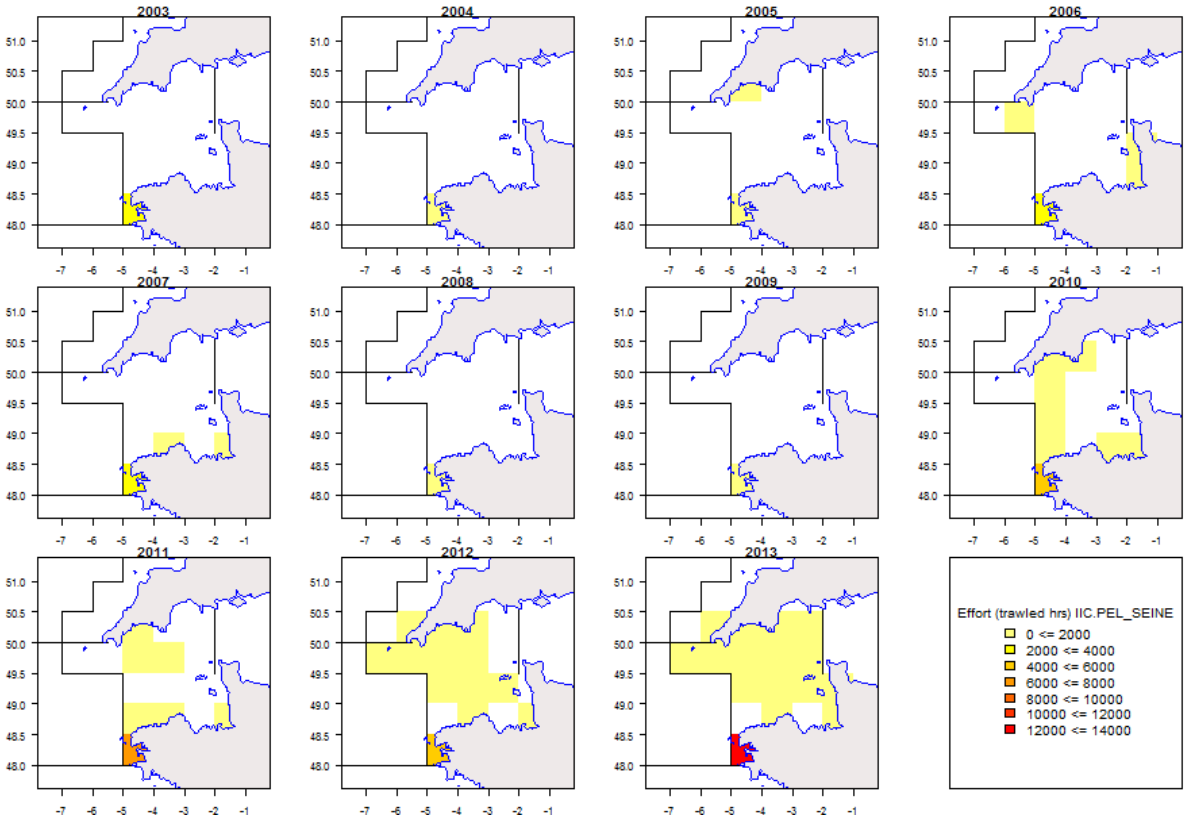


Figure 5.8.7.9. Western Channel. Spatial distribution of effective fishing effort (trawled hours) by ICES statistical rectangle for Pelagic Seine, 2003-2013.

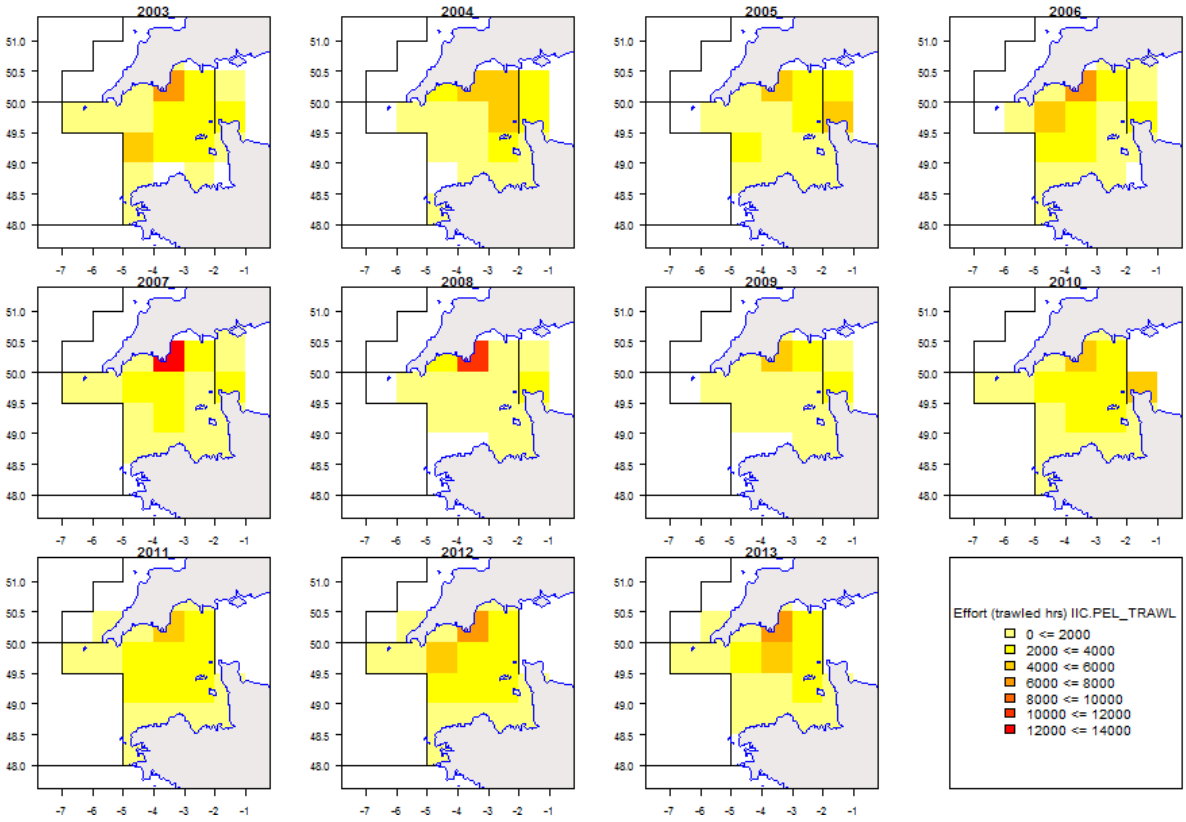


Figure 5.8.7.10. Western Channel. Spatial distribution of effective fishing effort (trawled hours) by ICES statistical rectangle for Pelagic Trawl, 2003-2013.

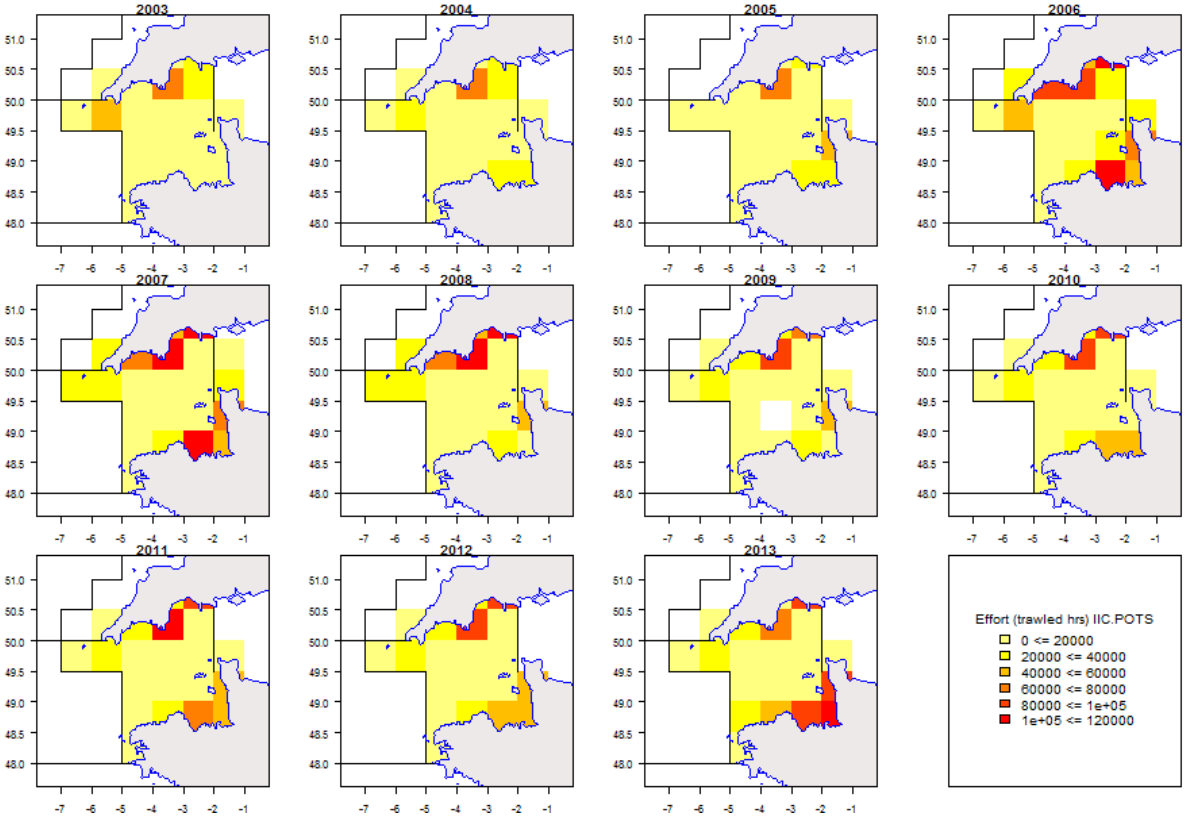


Figure 5.8.7.11. Western Channel. Spatial distribution of effective fishing effort (trawled hours) by ICES statistical rectangle for Pots, 2003-2013.

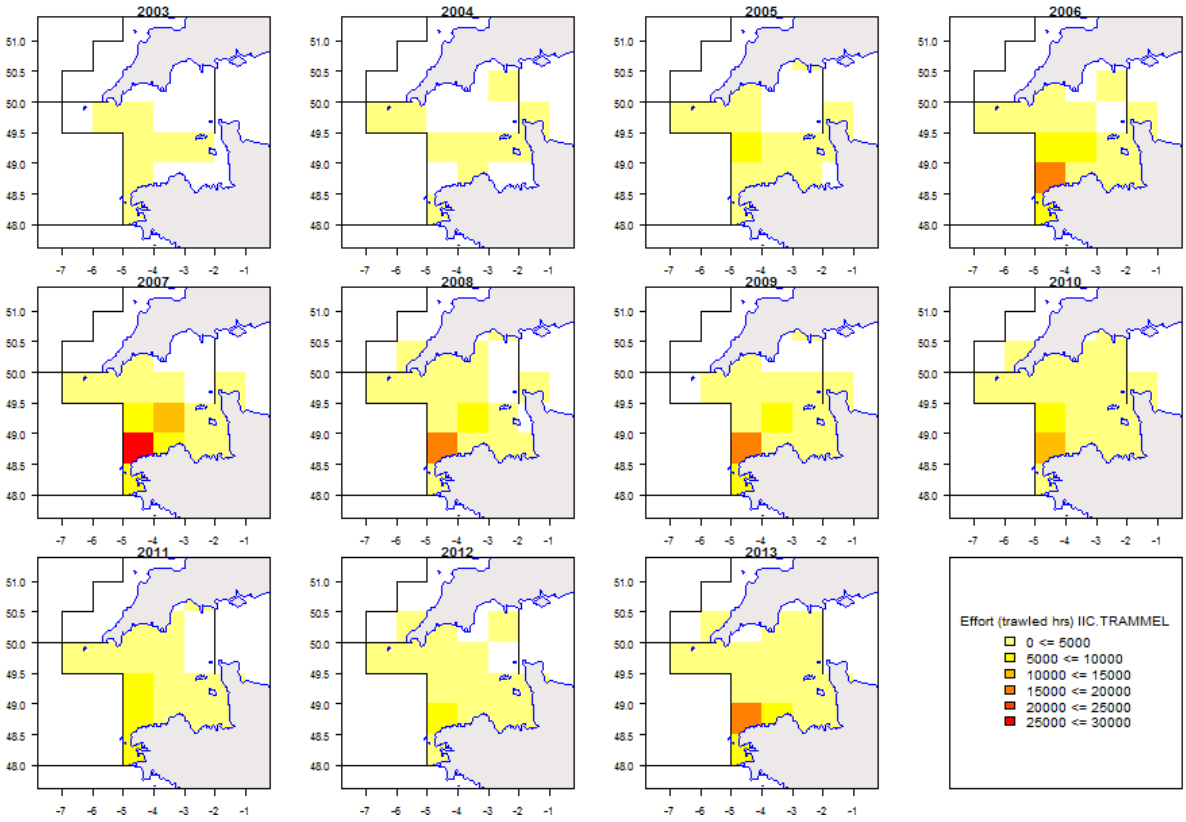


Figure 5.8.7.12. Western Channel. Spatial distribution of effective fishing effort (trawled hours) by ICES statistical rectangle for Trammel nets, 2003-2013.

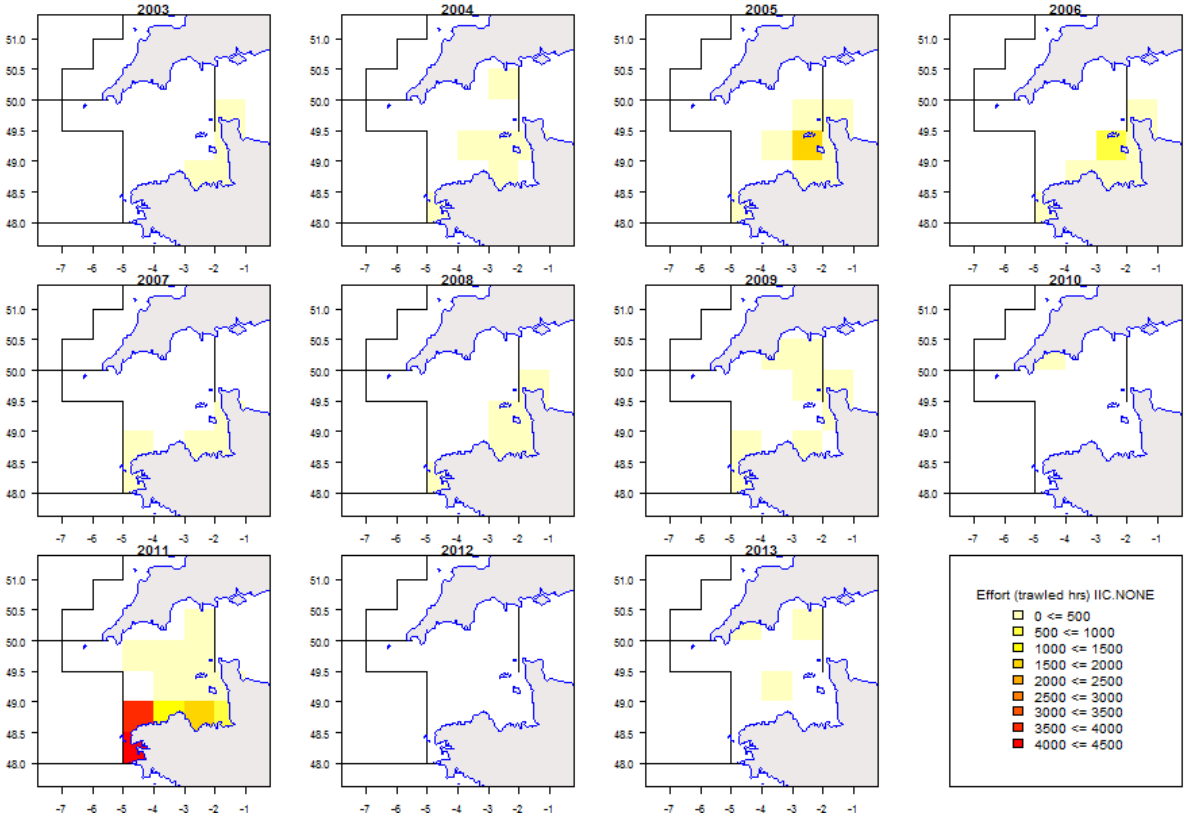


Figure 5.8.7.13. Western Channel. Spatial distribution of effective fishing effort (trawled hours) by ICES statistical rectangle for none ("none-none"), gears without mesh size given, 2003-2013.

5.8.8 ToR 5 Trend in calculated maximum effort of regulated gears and uptake by Member State

Table 5.8.8.1 lists the effort in units of days at sea estimated for the effort regulated and non-effort regulated fisheries by Member State. Although, the time series is only considered complete for the four most recent years 2010 to 2013 (data from the French fisheries is only available for the last 4 years), there is information from English and the Belgian regulated beam trawl fleet (3a) and from English regulated static gear (3b) since 2005.

Unlike the situation in the Baltic, the definitions of few fisheries, and specific days at sea allocations to them, allow the assessment of the effort uptake from the numbers of boats using effort regulated gears, assuming no major changes in gears used. Multiple counting of vessels (overestimation) is implied from vessels using more than one regulated gear. The maximum numbers of days available for such fisheries, i.e. the maximum days at sea per vessel multiplied with the number of vessels, are also given in the Table 5.8.8.1. EWG-14-06 would like to note that the UK has developed a "Days at Sea Scheme" where extra

days can be claimed. For 2012, the UK(English) regulated beam trawl fleet (3a) obtained 42 extra days, mounting up to a total days at sea of 206. Therefore the “max-days” in 2012 is not 7216 (164 days x 44 vessels) but 8858 (206 days x 43 vessels) and thus the %-used is not 95% but 75%. In 2013, the UK has obtained 43 extra days for their beam trawl fleet (3a) resulting in a “max-days” of 9108 days (207 days x 44 vessels) and a 67%-use. In 2013, France has obtained 11 extra days for their beam trawl fleet (3a), resulting in a “max-days” of 1050 days (175 days x 6 vessels) and a 29%-use. The French static gear (3b) obtained an extra 14 days for 2013, resulting in a “max-days” of 3382 days (178 days x 19 vessels) and a 35%-use.

For the regulated beam trawl fleet (3a), the English series indicate an increasing uptake from 47% in 2005 to about 80% in 2011and a levelling of around 70%. The Belgian and the French regulated beam trawl fleet show a stable uptake on a low (around 10%) and high level (around 65%) respectively. However, with the allocation of the extra 11days by vessel in 2013, the uptake for the French beam trawl fleet was halved to about 30%.

The English regulated static gear (3b) show a slight increase (20%-45%) over time whereas the French regulated static gear show a stable uptake around 50%. Again, it should be noted that the uptake in 2013 was substantially reduced to 35% due to the allocation of 14 extra days by vessel.

Table 5.8.8.1 Western Channel - Trend in days at sea by existing derogations given in Table 1 of Annex IIC (Coun. Reg. 43/2014) and Member State, 2004-2012. Maximum days at sea are calculated from number of vessels multiplied with the maximum days allowed per vessel. Derogations are sorted by gear, special condition (SPECON), and country. Data qualities are summarised in Section 4 of the report.

ANNEX	REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2004	2005	2006	2007	2008	2009	2010	2011	2012*	2013**
IIc	7e	3a	none	BEL	57	67	58	55	49	44	31	33	37	33
						16080	12528	10560	9408	8448	5084	5412	6068	5412
							670	810	542	174	342	521	534	402
							0.05	0.08	0.06	0.02	0.07	0.10	0.09	0.07
IIc	7e	3a	none	ENG	62	53	51	53	47	43	38	44	43	44
						12720	11016	10176	9024	8256	6232	7216	8858	9108
					6026	5960	6065	6167	6175	4769	5070	5687	6675	6099
						0.47	0.55	0.61	0.68	0.58	0.81	0.79	0.75	0.67
IIc	7e	3a	none	FRA	12	13	20	15	11	10	13	8	6	6
											2132	1312	984	1050
											1271	914	606	303
											0.60	0.70	0.62	0.29
IIc	7e	3a	none	GBJ	4	2								
						480								
					333	174								
						0.36								
IIc	**7e**	**3a Total**	**none**			**137**	**134**	**124**	**109**	**98**	**82**	**85**	**86**	**83**
						29280	**23544**	**20736**	**18432**	**16704**	**13448**	**13940**	**15910**	**15570**
						6134	**6735**	**6977**	**6717**	**4943**	**6683**	**7122**	**7815**	**6804**
											0.50	**0.51**	**0.49**	**0.44**
IIc	7e	3b	none	ENG	21	17	17	14	12	13	12	12	11	10
						4080	3672	2688	2304	2496	1968	1968	1804	1640
					1211	1047	844	584	566	646	618	752	721	731
						0.26	0.23	0.22	0.25	0.26	0.31	0.38	0.40	0.45
IIc	7e	3b	none	FRA	68	62	77	48	34	34	22	22	25	19
											3608	3608	4100	3382
											1830	1780	1951	1182
											0.51	0.49	0.48	0.35
IIc	**7e**	**3b Total**	**none**			**79**	**94**	**62**	**46**	**47**	**34**	**34**	**36**	**29**
						4080	**3672**	**2688**	**2304**	**2496**	**5576**	**5576**	**5904**	**5022**
						1047	**844**	**584**	**566**	**646**	**2448**	**2532**	**2672**	**1914**
													0.45	0.38
IIc	7e	none	none	BEL	3	6	7	6	12	28	23	20	22	22
										20				97
IIc	7e	none	none	DEU	4	3	3		2	1	3	1	2	4
										4	34	12	46	54
IIc	7e	none	none	DNK	1	4	8	1	1	1	1		1	1
					2	40	123	32	27	6	30		24	23
IIc	7e	none	none	ENG	178	162	170	175	174	156	154	158	158	167
					19227	19410	18298	18693	16610	17383	17797	18402	17213	17180
	7e	none	none	ESP									5	2
													135	69
IIc	7e	none	none	FRA	837	943	1114	1259	868	1022	688	654	642	635
											52225	54427	51683	49866
IIc	7e	none	none	GBG	1	2	4	5	4	3	3	2	3	3
					226	172	152	245	100	121	277	180	229	322
IIc	7e	none	none	GBJ	1	1	1	1	1	1	2	3	1	1
					2	27	88	139	117	140	173	191	62	153
IIc	7e	none	none	IOM			1	1	2				1	1
							53	3	4				56	3
IIc	7e	none	none	IRL	13	5	1	3	2	2	1	2	3	2
IIc	7e	none	none	LTU						1		1		
IIc	7e	none	none	NIR	1						1			
					7						1			
IIc	7e	none	none	NLD	15	13	13	19	15	18	16	17	15	16
												468	433	454
IIc	7e	none	none	SCO	23	14	21	16	15	18	18	19	18	20
IIc	**7e**	**none Total**	**none**		**1077**	**1153**	**1343**	**1486**	**1096**	**1251**	**910**	**877**	**866**	**872**
					19464	**19649**	**18714**	**19112**	**16858**	**17674**	**70537**	**73680**	**69881**	**68221**
					1303	**1369**	**1572**	**1674**	**1252**	**1398**	**1026**	**996**	**993**	**986**
IIc	**7e**	**Grand Total**	**none**		**27034**	**26830**	**26293**	**26673**	**24141**	**23263**	**79668**	**83334**	**80368**	**76939.71**

* = special derogation for UK-3a gear in 2012 obtaining 206 days instead of the basic 164 days.

** = special derogation for UK-3a gear in 2013 obtaining 207 days instead of the basic 164 days.

= special derogation for FR-3a gear in 2013 obtaining 175 days instead of the basic 164 days.

= special derogation for FR-3b gear in 2013 obtaining 178 days instead of the basic 164 days.

5.8.9 ToR 6 Data quality and any unexpected evolutions of the trends in catches and effort by Member State and fisheries

STECF EWG 14-06 reiterates its observation that a relatively high percentage of sole are landed by non-effort regulated gears.

5.8.10 ToR 7 Correlation between partial sole mortality and fishing effort by Member State and fisheries

The STECF EWG presents partial fishing mortalities by major fisheries and Member States in relation to the estimated fishing mortality by ICES (2014) and the landings volumes in relation to the estimated total landings for the years available. Discards of sole in VIIe are negligible and are not included in the sole VIIe assessment. The full list of all fisheries can be downloaded from the EWG's web page: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1413

Table 5.8.10.1 lists the fishing mortalities anticipated from the management plan as well as those estimated by ICES 2014. It can be concluded from the estimated F that the stock is sustainably exploited since 2009 (Fmsy=0.27), assuming that discarding is negligible (less than 1%). Since 2009, the estimated partial Fs of the effort regulated gear groups contributed about 60% to the overall fishing mortality. The remainder is then contributed by other gear groups, not regulated by fishing effort and additional unallocated removals considered by ICES.

Figure 5.8.10.1 shows the correlation between the partial F's and the effort for the main fisheries, using the full time series available (2003-2013). It was noted however that for 2003 and 2004, the DCF data do represent only about 50% of the landings reported to ICES (basis for the partial F's) and therefore should not be taken into account in the regression evaluation. As the adjustments to the ICES data in those years were predominantly done for the English beam trawl fleet (3a), catching most of the sole, it is not surprising that these two data years appear as outliers for the English beam trawl fleet (ENG 3a). Therefore STECF-EWG decided to exclude the first two years of data for the partial F analysis. Figure 5.8.10.2 shows the correlation between the partial F's and the effort for the main fisheries for the shorter time series 2005-2013. Figure 5.8.10.3 shows the catchability and Figure 5.8.10.4 the time series of the partial F's over the same period for the main fisheries.

STECF EWG 14-13 notes that the correlations between the summed partial Fs for landings of the major fisheries and their estimated fishing efforts are significant for the period 2005-2013 (Figure 5.8.10.2). The partial Fs of Belgian and English fisheries using the regulated gear 3a, accounting for about 50% of the landings, are closely correlated with their specific effort estimates in kW*days at sea. Also the unregulated French otter trawl fleet, taking about 17% of the sole landings, has a significant correlation between partial F and kW*days at sea (Figure 5.8.10.2). However for the French regulated beam trawl fisheries (3a), which represent just about 5% of the sole landings, the correlation between F and effort (kW*days) is statistically not significant. This indicates that effective fisheries management for sole in ICES Division VIIe by fishing effort in units of kW*days at sea appears possible, also an auxiliary measure to catch constraints and technical measures. Catchability of the main metiers are rather stable apart from the French regulated beam trawl fleet (3a). Since 2008 there appears to be a shift in catchability in the regulated French beam trawl fleet when more vessels between 10-15m were active then vessels over 15m (Figure 5.8.10.3).

STECF EWG 14-13 notes that if a fishing effort regime in the Western Channel is to be maintained, it shall consider an appropriate measure of effective unit of fishing effort to account for vessel size/power and gear effectiveness.

Table 5.8.10.1 Western Channel sole. The left part of the table lists estimated F trajectories from the management plan and the ICES 2014 sole assessment, as well as partial Fs for landings of fisheries using regulated gears. The right part of the table lists the respective trends in fishing effort (kW*days at sea) as well as the fisheries specific fishing effort. A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

From 2007 F reductions of 20 percent from previous year until F<=Fmsy=0.27

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
F plan					0.366	0.293	0.270	0.270	0.270	0.270	0.270
reduction F plan						-0.20	-0.08	0.00	0.00	0.00	0.00
F estimated	0.257	0.309	0.340	0.359	0.366	0.331	0.222	0.214	0.213	0.239	0.250
reduction F estimated						-0.10	-0.33	-0.04	0.00	0.12	0.05

Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
BEL	3A	NONE	landings	0.00019	0.00206	0.00830	0.01136	0.01214	0.00886	0.00494	0.00483	0.00542	0.00875	0.00697
ENG	3A	NONE	landings	0.04288	0.03664	0.13549	0.16499	0.15419	0.13594	0.09536	0.09098	0.09302	0.11168	0.12062
ENG	3B	NONE	landings	0.00016	0.00027	0.00040	0.00039	0.00184	0.00242	0.00306	0.00094	0.00141	0.00220	0.00094
FRA	3A	NONE	landings	0.00143	0.01235	0.00966	0.01084	0.01181	0.01214	0.01010	0.01919	0.01604	0.01047	0.00642
FRA	3B	NONE	landings	0.00674	0.01368	0.02292	0.01426	0.01589	0.01396	0.01215	0.00590	0.01169	0.00939	0.00570
GBJ	3A	NONE	landings	0.00303	0.00202	0.00626								
IRL	3A	NONE	landings	0.00016	0.00007		0.00018	0.00076	0.00012					
Sum				0.05459	0.06709	0.18303	0.20202	0.19663	0.17344	0.12561	0.12184	0.12758	0.14249	0.14065
check sum Fpar/F				0.21	0.22	0.54	0.56	0.54	0.52	0.57	0.57	0.6	0.6	0.56

Effort kW days running previous year baseline

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Effort plan					5218704	4174963	3966215	3966215	3966215	3966215	3966215
						-0.20	-0.05	0.00	0.00	0.00	0.00
Effort estimated (	5057647	5845003	5441022	5599174	5218704	4324657	3410663	3328216	3432438	3577464	3035346
							-0.21	-0.02	0.03	0.04	-0.15

EFFORT

kW days at sea	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
	211491	633428	689624	628907	837161	584560	358399	383303	514973	554941	423935
	3374514	3206806	3227096	3283897	3021075	2871790	2197118	2227991	2318845	2474852	2250479
	323618	206294	178818	153434	103278	104187	104045	109304	118156	113947	117863
	45086	317275	261700	289867	320576	146443	138669	303078	200030	131536	61050
	956465	1236654	946127	1236595	920004	615534	611990	304540	280434	302188	182019
	122867	209969	121139								
	23606	34577	16518	6474	16610	2143	442				
	5057647	5845003	5441022	5599174	5218704	4324657	3410663	3328216	3432438	3577464	3035346

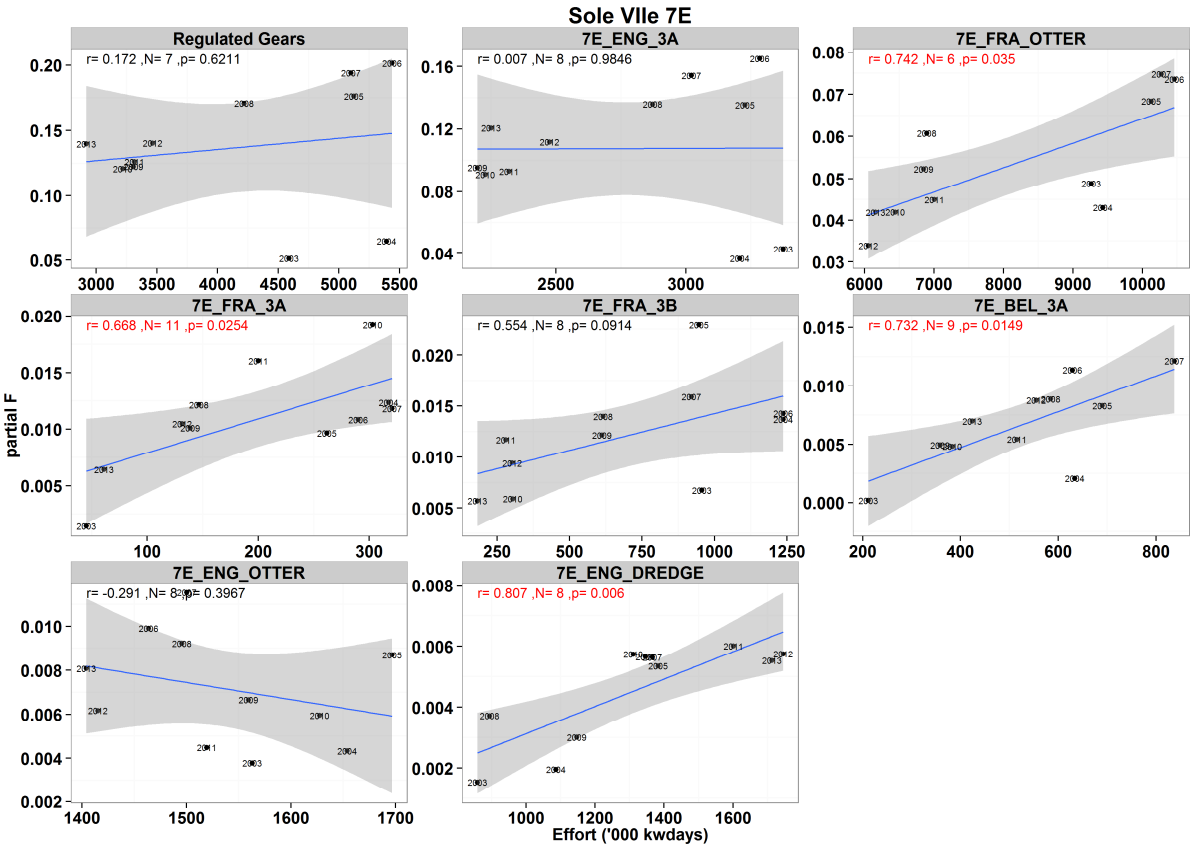


Fig. 5.8.10.1 Western Channel sole. Partial fishing mortality (based on harvest rate estimates) over effort (kW*days) of the major fisheries, 2003-2013.

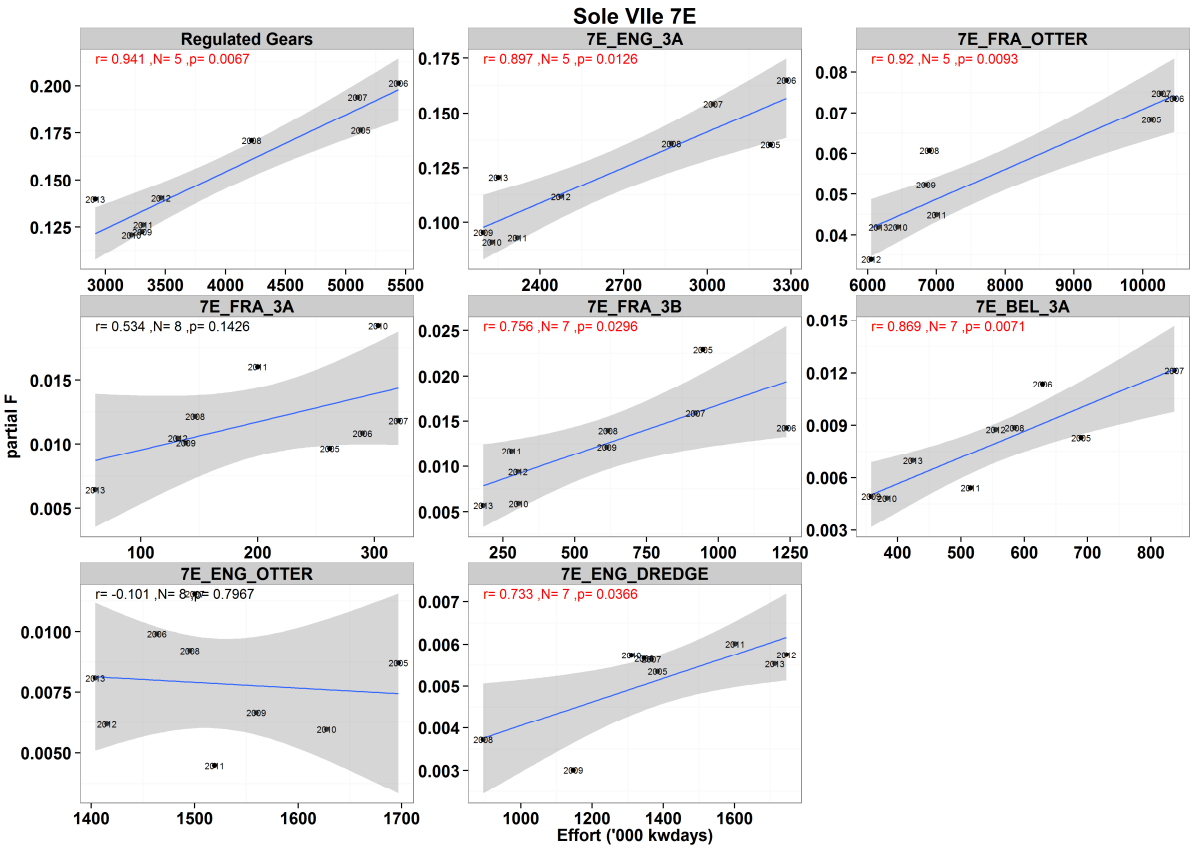


Fig. 5.8.10.2 Western Channel sole. Partial fishing mortality (based on harvest rate estimates) over effort (kW*days) of the major fisheries, 2005-2013.

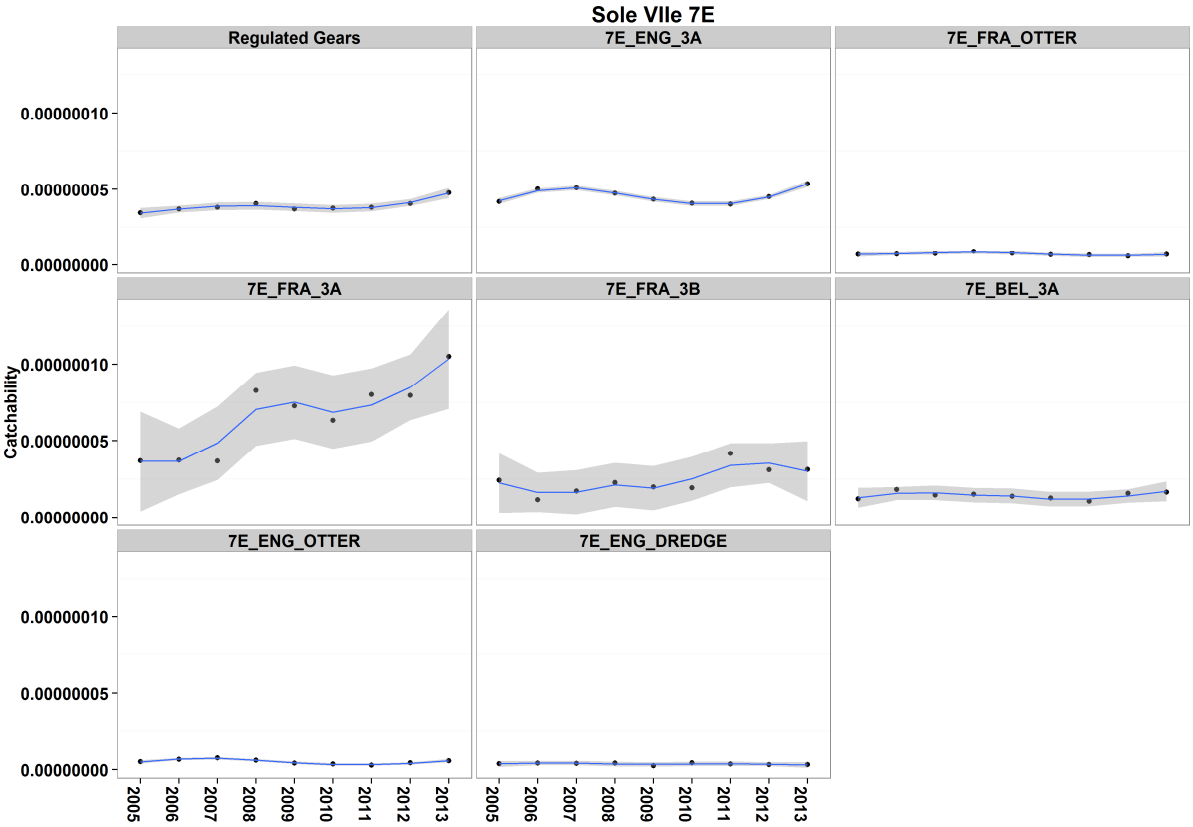


Fig. 5.8.10.3 Western Channel sole. Catchability of the major fisheries, 2005-2013.

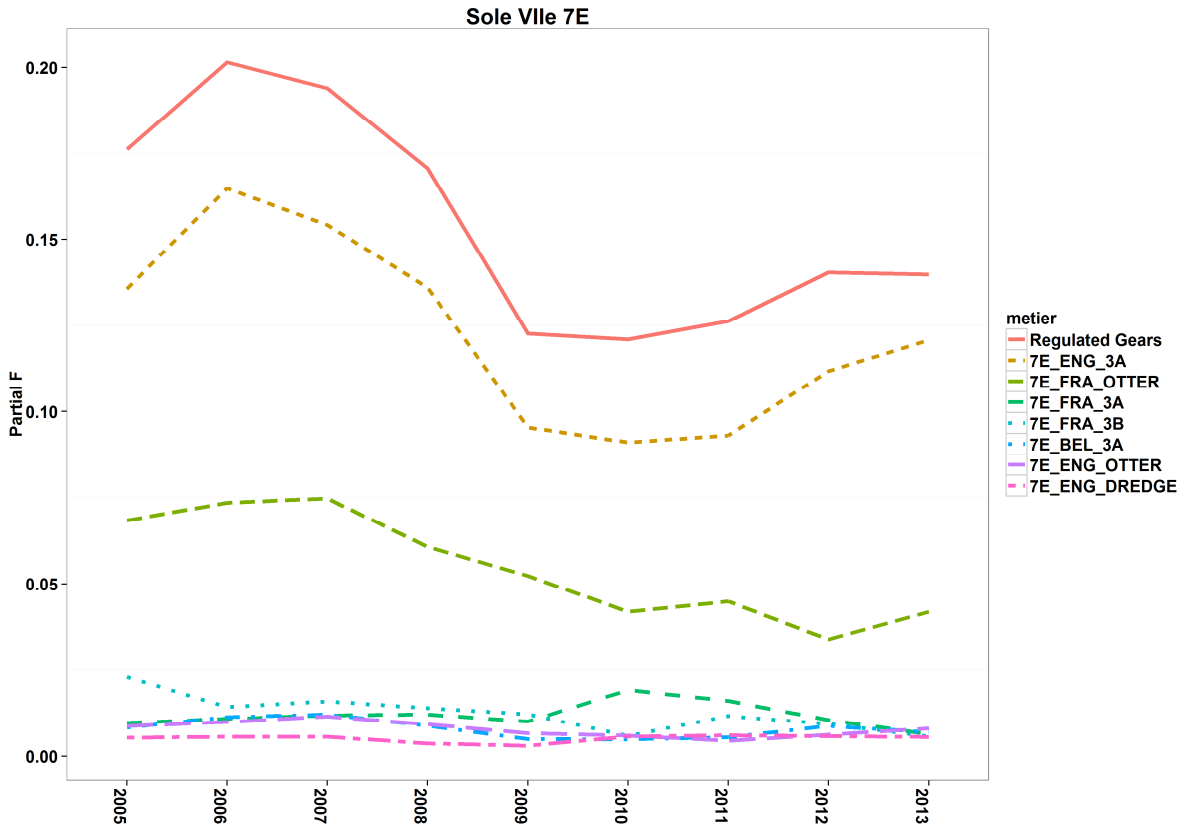


Fig. 5.8.10.4 Western Channel sole. Time series of Partial fishing mortality (based on harvest rate estimates) over effort (kW*days) of major fisheries, 2005-2013.

5.9 Deep Sea and Western Waters effort regime evaluations

Details of the Deep Sea Regulations can be found in COUNCIL REGULATION (EC) No 2347/2002.

The format for presenting Deep Sea information was discussed during the July 2009 SGMOS meeting when experts with particular knowledge were present. It was agreed that the most useful presentation would be data summarised on a regional approach so as to identify geographic differences in effort distribution by key member states and important gears. It was decided that regions would be based on ICES areas. It may be the case that similarities between some of these areas would allow areas to be combined in future summaries. Where an ICES area contained waters within EU jurisdiction and waters outside of this, separate summaries are provided where data allow.

In this section of the report tables showing effort by gear groups (regulated and unregulated), area and nation are only summaries. The full tables are available on the JRC website: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1413.

It should be noted that Spain has not provided data for 2010 and 2011.

Details of the Western Waters regulations and its geographical extent can be found in the regulation COUNCIL REGULATION (EC) No 1415/2004.

The EWG experienced extreme difficulties in preparing these data and the interpretation of them is confounded by uncertainty in the western waters data summaries for some member states most notably Portugal, France and Spain. **SINCE THESE COUNTRIES OPERATE EXTENSIVELY IN THE WESTERN WATERS AREAS AND ARE LIKELY TO CONTRIBUTE A SIGNIFICANT PROPORTION TO THE OVERALL EFFORT COVERED BY THIS REGULATION, THE DATA SHORTFALL IMPLIES THAT OVERALL EFFORT FIGURES REMAIN UNRELIABLE.**

The EWG database records effort in the areas covered by the Western waters regulation including effort which becomes categorised as 'deep sea'. Since these two regulations are legislated to be non-overlapping, columns are included to show the western waters effort without the deep sea.

Table 5.9.1. COUNCIL REGULATION (EC) No 2347/2002 Annex I and 2 species list:

Code	Annex	Scientific name	Common name
ALF	1	*Beryx* spp	Alfonsinos
APQ	1	*Apristurus laurussonii*	Iceland catchark
ARU	1	*Argentina silus*	Greater silver smelt
BLI	1	*Molva dypterygia*	Blue ling
BSF	1	*Aphanopus carbo*	Black scabbard
CFB	1	*Centroscyllium fabricii*	Black dogfish
CYO	1	*Centroscymnus coelolepis*	Portuguese dogfish
CYP	1	*Centroscymnus crepidater*	Longnose velvet dogfish
DCA	1	*Deania calcea*	Birdbeak dogfish
ETR	1	*Etmopterus princeps*	Greater lantern shark
ETX	1	*Etmopterus spinax*	Velvet belly
FOX	1	*Phycis blennoides*	Forkbeards
GAM	1	*Galeus murinus*	Mouse catshark
GSK	1	*Somniosus microcephalus*	Greenland shark
GUP	1	*Centrophorus granulosus*	Gulper shark
GUQ	1	*Centrophorus squamosus*	Leafscale gulper shark
HXC	1	*Chlamydoselachus anguineus*	Frilled shark
ORY	1	*Hoplostethus atlanticus*	Orange roughy
OXN	1	*Oxynotus paradoxus*	Sharpback shark
RNG	1	*Coryphaenoides rupestris*	Roundnose grenadier
SBL	1	*Hexanchus griseus*	Six-gilled shark
SCK	1	*Dalatias licha*	Kitefin shark
SHO	1	*Galeus melastomus*	Blackmouth dogfish
SYR	1	*Scymnodon ringens*	Knifetooth dogfish
ALC	2	*Alepocephalus bairdii*	Baird's smoothhead
ANT	2	*Antimora rostrata*	Blue antimora
BRF	2	*Helicolenus dactylopterus*	Blue mouth redfish
CMO	2	*Chimaera monstrosa*	Rabbitfish
COE	2	*Conger conger*	Conger eel
CYH	2	*Hydrolagus mirabilis*	Large-eyed rabbitfish
ELZ	2	*Lycodes esmarkii*	Eelpout
EPI	2	*Epigonus telescopus*	Black cardinal fish
HPR	2	*Hoplostethus mediterraneus*	Silver roughy
JAD	2	*Dipturus nidarosiensis*	Norwegian skate
KEF	2	*Chaceon affinis*	Deep-water red crab
PHO	2	*Alepocephalus rostratus*	Risso's smoothhead
RCT	2	*Rhinochimaera atlantica*	Straightnose rabbitfish
RHG	2	*Macrourus berglax*	Roughhead grenadier
RIB	2	*Mora moro*	Common mora
RJG	2	*Amblyraja hyperborea*	Arctic skate
RJY	2	*Rajella fyllae*	Round skate
SBR	2	*Pagellus bogaraveo*	Red (blackspot) seabream
SFS	2	*Lepidopus caudatus*	Silver scabbard fish
SFV	2	*Sebastes viviparus*	Small redfish
TJX	2	*Trachyscorpia cristulata*	Spiny (deep sea) scorpionfish
WRF	2	*Polyprion americanus*	Wreckfish

5.9.1 ToR 1a Fishing effort by area

DEEP SEA

Effort within the Deep sea and Western waters has been compiled for kW*days-at-sea, GT*days-at-sea, and numbers of vessels. Within the report the focus is on kW*Days at sea. Information on GT*days at sea and numbers of vessels is available via the website: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1413

Overview of spatial distribution of fishing effort data: Collation of data to address questions associated with deepwater fisheries provided an opportunity to present spatial data across wide geographic areas giving a general picture of the distribution of fishing activity.

For each ICES Sub-area, tables are included which show effort by country (and an overall effort for the area) and effort by gear. In addition, figures illustrating trends are included for the most important gears.

Figures 5.9.1.1 to 5.9.1.5 show respectively the distribution of effort for five of the categories of gear; bottom trawl, pelagic trawl, longline, gill nets and beam trawl specified in the Terms of Reference.

Bottom trawl effort is concentrated in ICES Area IVa as well as the Continental shelf and slope to the west and southwest of Ireland and the UK. Bottom trawl effort in the Bay of Biscay, the Cantabrian Sea and off the Portuguese coast increased in 2012 compared to 2010 and 2011. In 2013 effort decreased slightly in areas VIIj and VIIIc but increased in Areas IIa and XIV.

Pelagic trawling was concentrated to the west of Ireland, and to the west and north of Scotland in the mid-2000s. This effort decreased greatly between 2007 and 2009, increased again in 2010, but has reduced again in 2011 and 2012. In 2013 effort increased in Areas IVa and IXa, but decreased in areas VIIIa and VIIIb.

Longline effort was concentrated on the shelf and slope between Shetland and Portugal but has been in decline in recent years. Longline effort from the Azores has shown an increase since 2009. In 2013 longline effort is reduced in areas IXa and Xa, however this is probably just a reflection of the issues with the Portuguese data.

In the mid 2000s gill net effort was concentrated in the Celtic sea and Porcupine Bank. Due to current restrictions in the use of deepwater gill nets much of this effort is now concentrated in the Celtic sea, with some effort in the North sea, west of Scotland and the Bay of Biscay. In 2013 effort increased in areas VIIg and VIb but decreased in area IVb.

Beam trawling is concentrated in the Celtic sea and the western English Channel. While beam trawls are not a deepwater gear some of the species caught are classified under Annex 2.

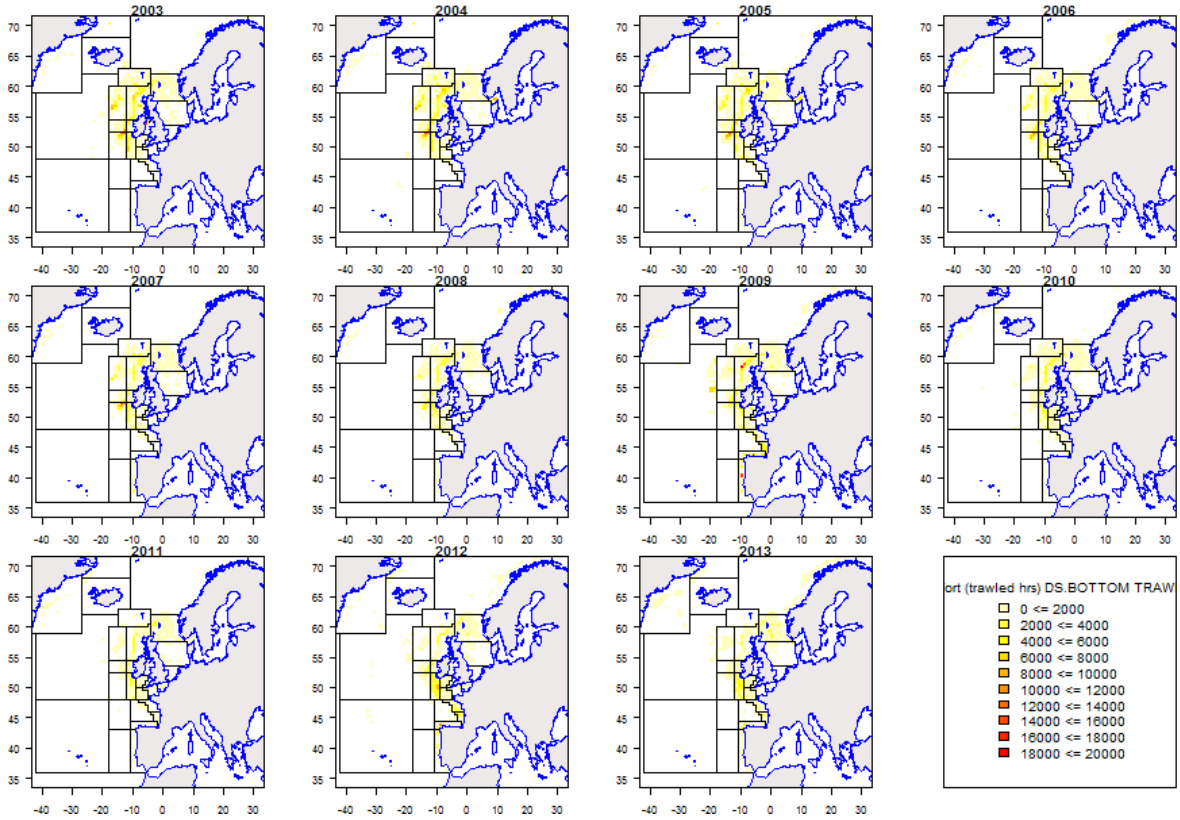


Figure 5.9.1.1 Distribution of bottom trawl effort, (specified as deep sea fisheries), 2003 – 2013.

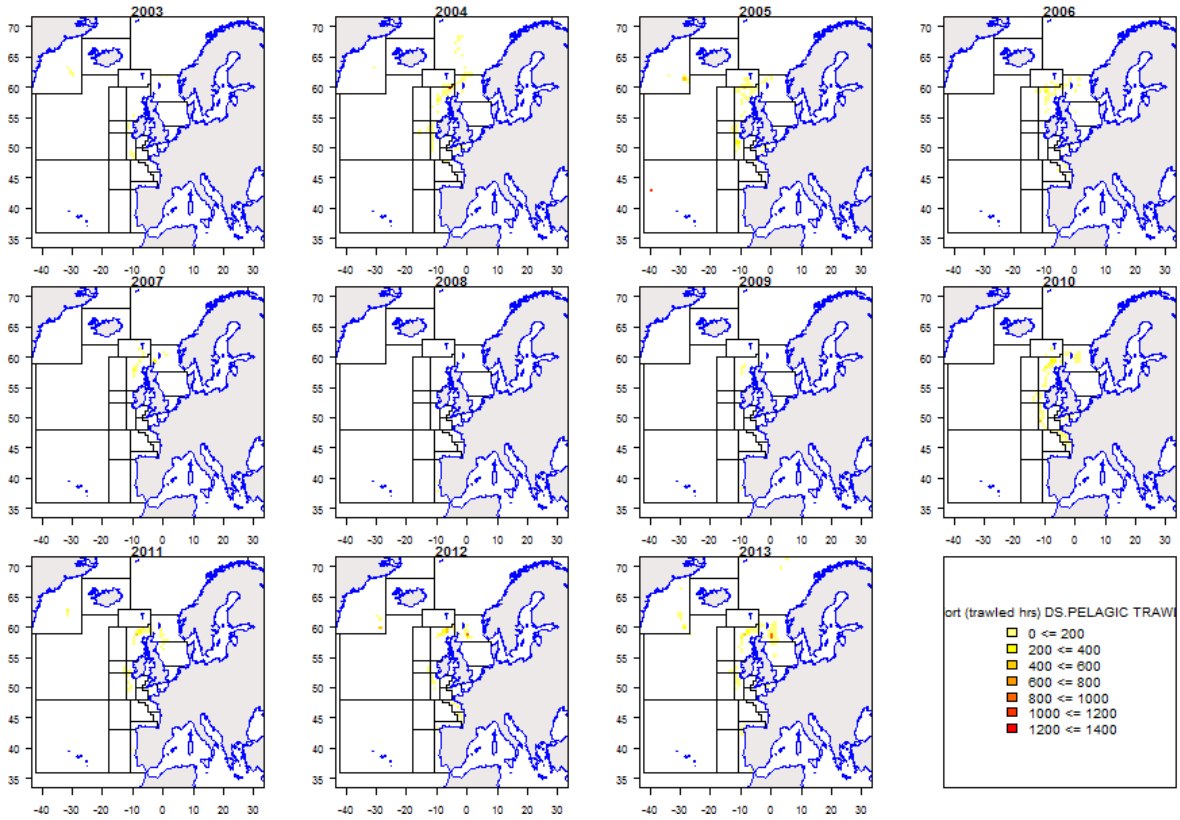


Figure 5.9.1.2 Distribution of pelagic trawl effort, (specified as deep sea fisheries), 2003 – 2013.

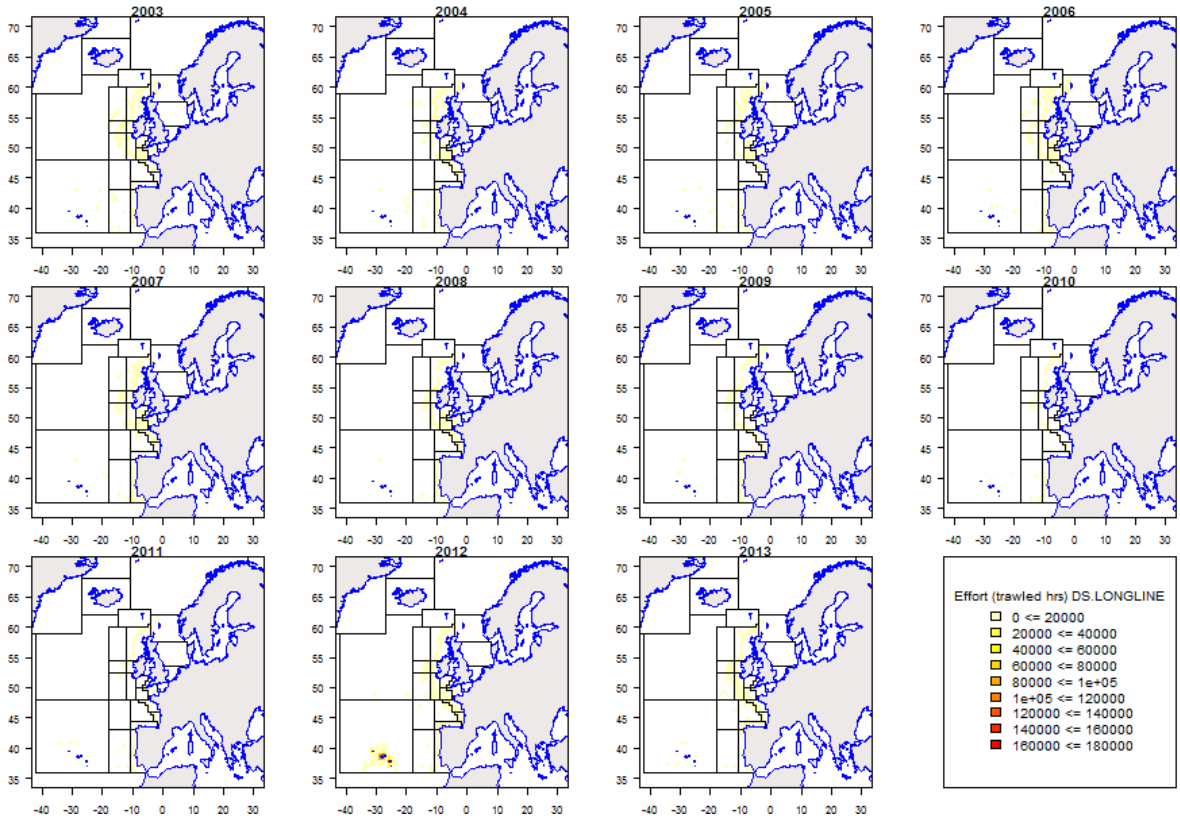


Figure 5.9.1.3 Distribution of longline effort, (specified as deep sea fisheries), 2003 – 2013.

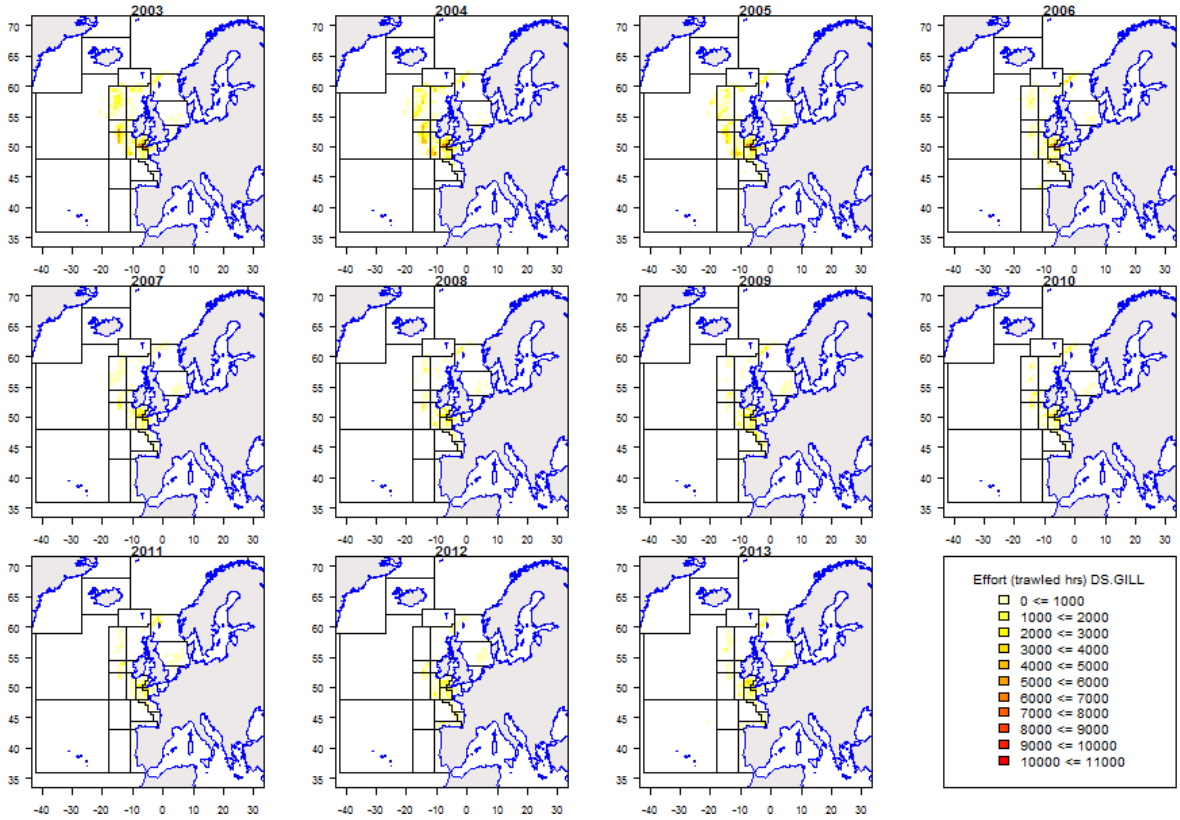


Figure 5.9.1.4 Distribution of gill net effort, (specified as deep sea fisheries), 2003 – 2013.

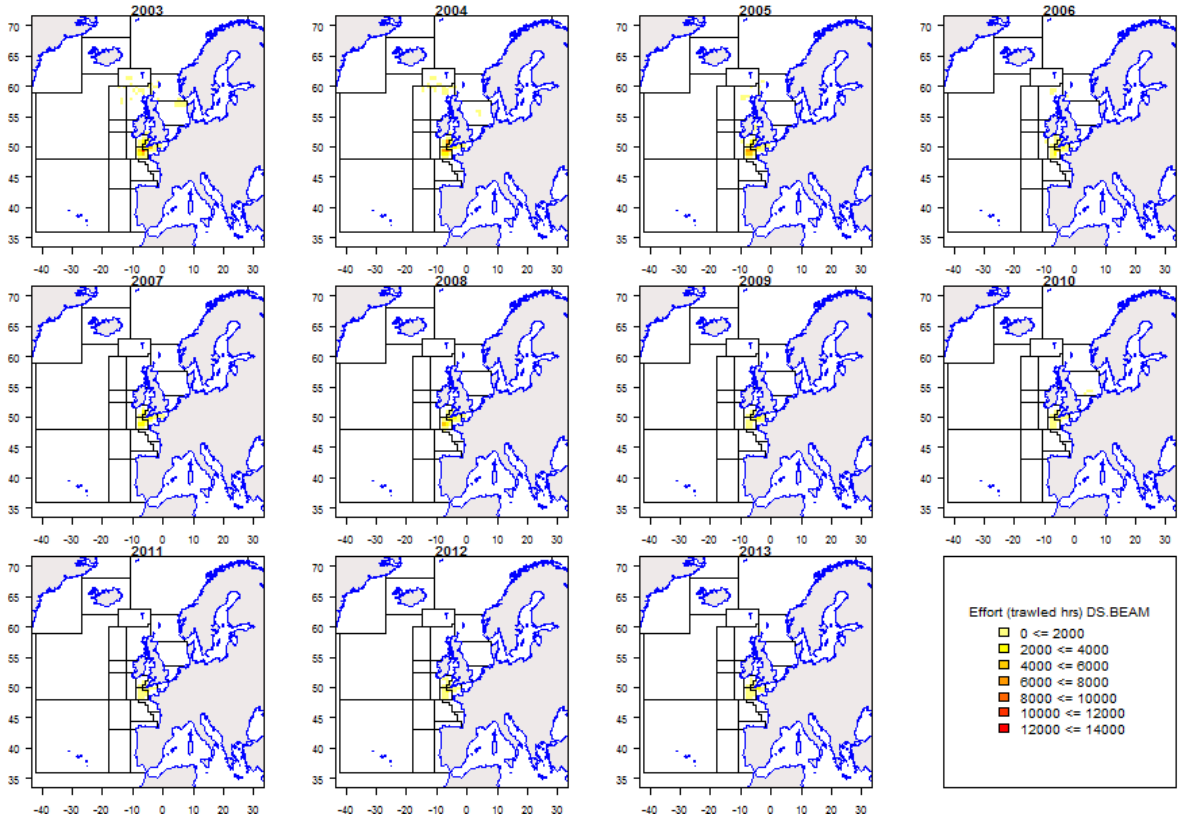


Figure 5.9.1.5 Distribution of beam trawl effort (specified as deep sea fisheries), 2003 – 2013.

WESTERN WATERS

Effort data under the Western Waters regulation is presented by a number of EU and non-EU areas. Where relevant these encompass breakdowns by country, gear and vessel length groups.

5.9.1.1 Fishing effort in ICES area I by fisheries and Member States only linked to Deep Sea species

Area I non-EU

Sparse effort by Germany was reported historically from this area (Tables 5.9.1.1.1, 5.9.1.1.2 and Figure 5.9.1.1.1). However France has reported some effort for bottom trawls for 2012 and 2013. None of this effort is in EU waters.

Table 5.9.1.1.1.- Deep Sea fishing effort (kW*days) 2003 – 2013 by member state ICES Sub-area I non-EU.

Area	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
1 non EU	FRA										96750	290191
	DEU				70600			2427				
1 non EU Total					70600			2427			96750	290191

Table 5.9.1.1.2.- Deep Sea fishing effort (kW*days) 2003 – 2013 by gear and member state ICES Sub-area I non-EU.

Area	Gear	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
1 non EU	BOTTOM TRAWLS	FRA										96750	290191
1 non EU	BOTTOM TRAWLS	DEU				70600			2427				
1 non EU Total						70600			2427			96750	290191

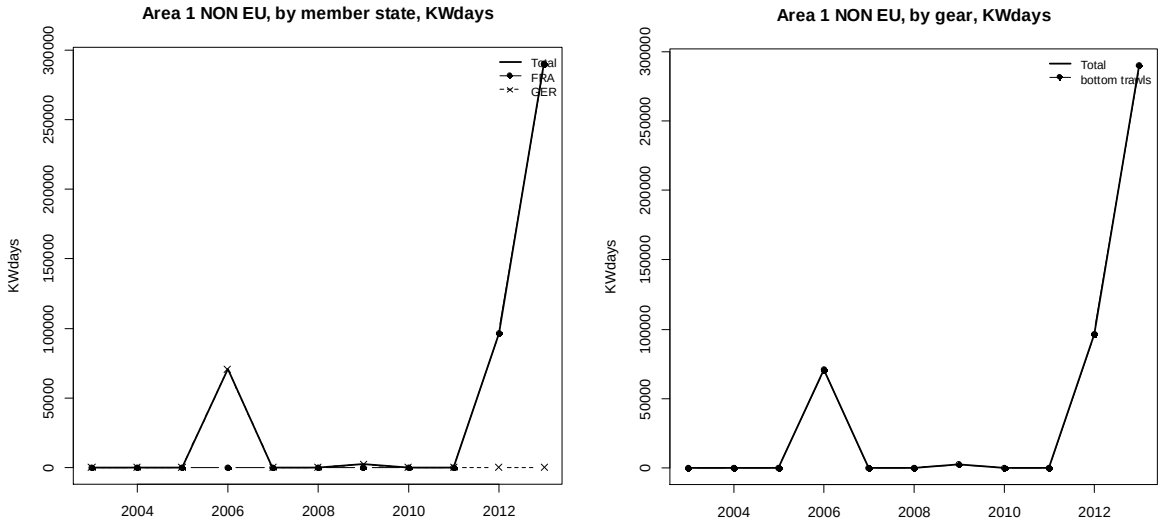


Figure 5.9.1.1.1.- Deep Sea Effort (kW*days) 2003-2013 by member state and by gear ICES Area I non EU.

5.9.1.2 Fishing effort in ICES area II by fisheries and Member States only linked to Deep Sea species

Area II EU

Four countries reported effort in this area with the majority being carried out by two countries, France and UK, with the pattern of each varying through time (Table 5.9.1.2.1). French effort showed a particularly noticeable drop in the mid 2000s, before increasing again from 2006. This effort peaked in 2008 but dropped again to 2011 before increasing again in 2012 and 2013. UK effort has fluctuated throughout the time series, however effort in 2013 was the second highest recorded. It mainly comprises bottom trawl, with some gill net effort. Netherlands pelagic trawl effort stopped in 2007 (Table 5.9.1.2.2). Germany contributed some effort in the mid-2000s. Effort in Sub-area II (EU) shows no obvious trend.

The principal gear used in this Sub-area (Table 5.9.1.2.2, and Figure 5.9.1.2.1) was the otter trawl (by France and UK). UK gill net effort fluctuated between 2002 and 2010 (albeit at a relatively low level). This had ceased in 2010 but effort has been reported again in 2013.

Table 5.9.1.2.1.- Deep Sea fishing effort (kW*days) 2003 – 2013 by member state ICES Sub-area II EU.

Area	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
2 EU	FRA	43886	29608	65124	210353	134456	248412	246993	144020	63238	141426	224975
	GER	33516	87864		12000							
	NED	13200	158115									
	UK	66870	26431	12017	200446	97363	79378	73683	71877	19261	80985	115152.94
2 EU Total		157472	302018	77141	422799	231819	327790	320676	215897	82499	222411	340128

Table 5.9.1.2.2.- Deep Sea fishing effort (kW*days) 2003 – 2013 by gear and member state ICES Sub-area II EU.

Area	Gear	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
2 EU	BOTTOM TRAWLS	FRA	43886	29608	65124	210353	134456	248412	246993	144020	63238	141426	224975
		GER		4410		12000							
		UK	66870	17755	4661	178712	45144	24171	47637	69845	19261	80985	80038
	GILL	GER	33516	53802									
		UK		8676	7356	21734	39241	55207	26046	2032			35115
	PELAGIC TRAWLS	GER		29652									
		NED	13200	158115									
		UK					12978						
2 EU Total			157472	302018	77141	422799	231819	327790	320676	215897	82499	222411	340128

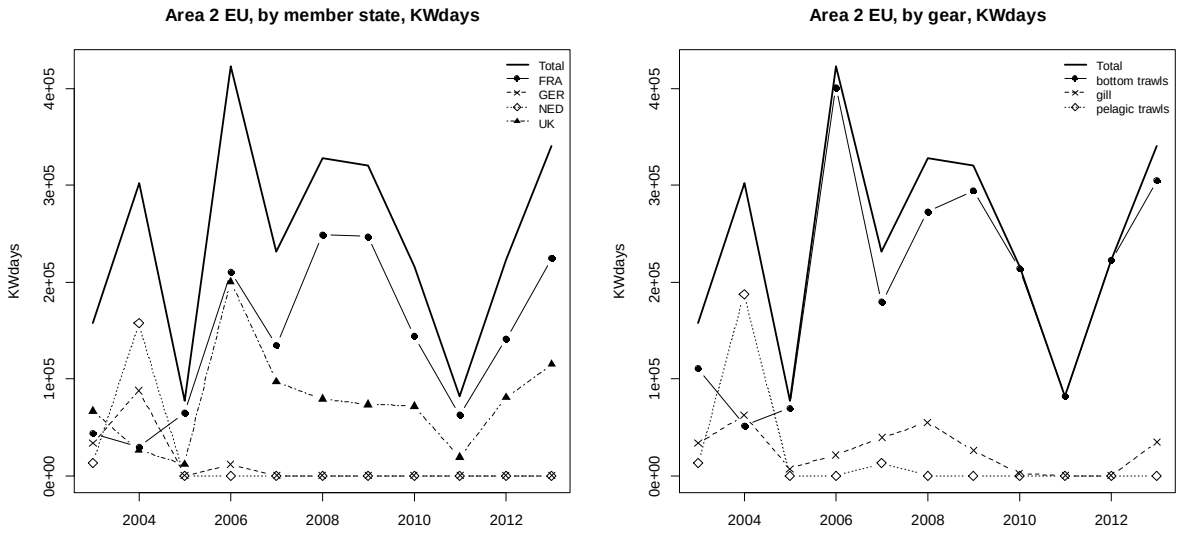


Figure 5.9.1.2.1.- Deep Sea Effort (kW*days) 2003-2013 by member state and by gear ICES Area II EU.

Area II non-EU

Six countries reported effort in this area with the majority being carried out by the UK (Table 5.9.1.2.3). Total effort had decreased since the mid 2000s but is showing an increase again since 2012. UK bottom trawl effort has been in decline since 2005, however effort by France, which started in 2010, is increasing. Netherlands pelagic trawl effort stopped in 2006 (Table 5.9.1.2.4). Germany contributed some effort in the mid 2000s and again in 2013. Spain also reported effort in this area for the first time in 2013.

The principal gear used in this Sub-area (Table 5.9.1.2.4, and Figures 5.9.1.2.2.) is the otter trawl (by UK, France, Germany and Spain). Netherland pelagic trawl effort reached a peak in 2004 but has ceased since 2007, while Spain reported pelagic effort for 2013. Spain also reported a small amount of longline effort for 2013.

Table 5.9.1.2.3.- Deep Sea fishing effort (kW*days) 2003 – 2013 by member state ICES Sub-area II non-EU.

Area	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
2 non EU	ESP											208241
	FRA								81836	115246	183749	375836
	GER	94653	49420	43686	262923			266743				75685
	IRL	1350										
	NED	349335	781113	196020	216254							
	UK	701782	649580	817921	802633	613414	603521	380425	283442	247297	229508	92337.78
2 non EU Total		1147120	1480113	1057627	1281810	613414	603521	647168	365278	362543	413257	752100

Table 5.9.1.2.4.- Deep Sea fishing effort (kW*days) 2003 – 2013 by gear and member state ICES Sub-area II non-EU.

Area	Gear	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
2 non EU	BOTTOM TRAWLS	ESP											70946
		FRA								71532	115246	183749	375836
		GER	94653		43686	262923			266743				75685
		UK	701782	649580	817921	802633	470655	603521	380425	283442	247297	229508	92338
	DREDGE	FRA								10304			
	LONGLINE	ESP											645.33
		IRL	1350										
	PELAGIC TRAWLS	ESP											136650
		GER		49420									
		NED	349335	781113	196020	216254							
		UK					142759						
2 non EU Total			1147120	1480113	1057627	1281810	613414	603521	647168	365278	362543	413257	752100

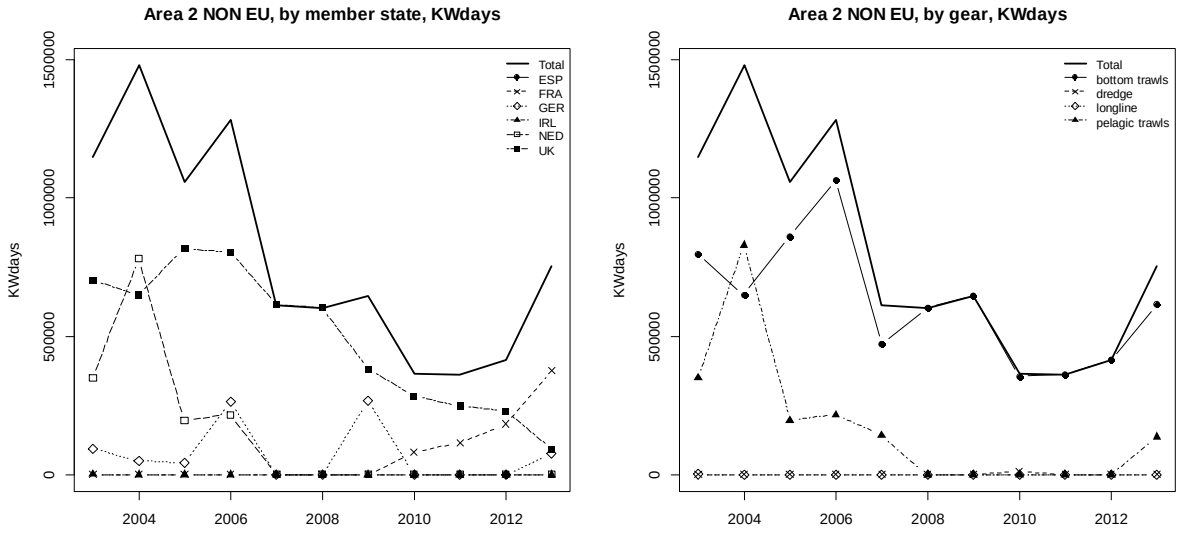


Figure 5.9.1.2.2. Deep Sea Effort (kWdays) 2003-2013 by member state and by gear ICES Area II non EU.

5.9.1.3 Fishing effort in ICES area III by fisheries and Member States only linked to Deep Sea species

Area III no Baltic

All effort takes place in EU waters but is very limited and the majority of the records are for Danish vessels using bottom trawls. German data was reported for 2004 only and France reported a small amount of effort in 2012. No effort data was reported for 2013.

Table 5.9.1.3.1.- Deep Sea fishing effort (kW*days) 2003 – 2013 by member state ICES Sub-area III EU no Baltic.

Area	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
3 no Baltic	DEN	231924	529970	383720	155403	4128		8990	2682	17698		
	FRA										1850	
	GER		1470									
3 no Baltic Total		231924	531440	383720	155403	4128		8990	2682	17698	1850	

Table 5.9.1.3.2.- Deep Sea fishing effort (kW*days) 2003 – 2013 by gear and member state ICES Sub-area III EU no Baltic.

Area	Gear	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
3 no Baltic	BOTTOM TRAWLS	DEN	231924	529970	383720	155403	4128		8990	2682	17698		
		FRA										1850	
		GER		1470									
3 no Baltic Total			231924	531440	383720	155403	4128		8990	2682	17698	1850	

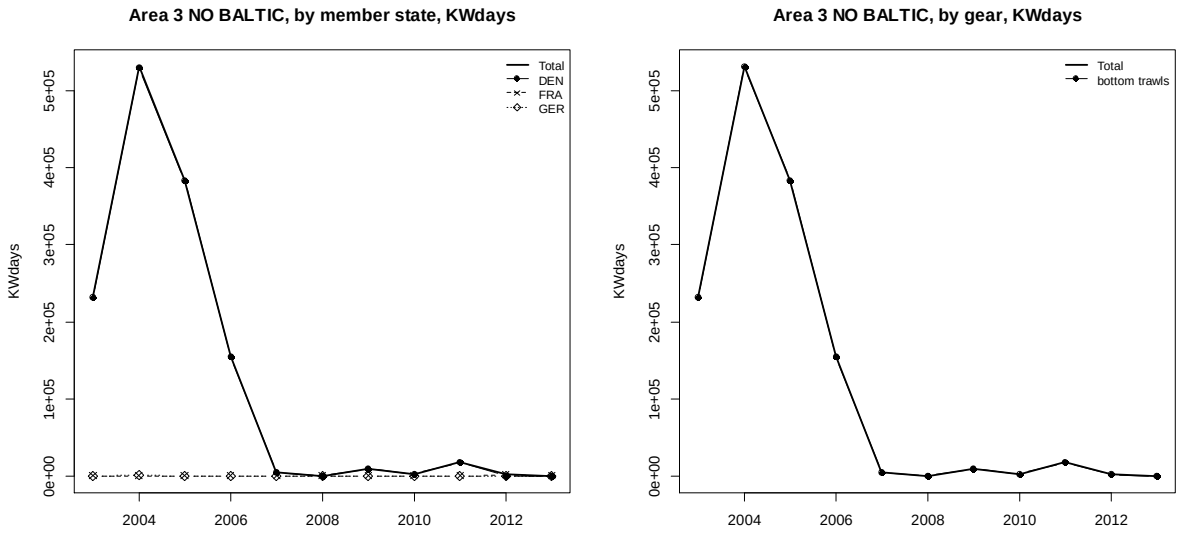


Figure 5.9.1.3.1.- Deep Sea Effort (kWdays) 2003-2013 by member state ICES Area III no Baltic.

5.9.1.4 Fishing effort in ICES area IV by fisheries and Member States only linked to Deep Sea species

Area IV

Six countries have reported effort in this area, all of which occurs in EU waters, with four countries, France, Netherlands, Denmark and UK contributing the most (Tables 5.9.1.4.1 and 5.9.1.4.2). There was a downward trend in overall effort up to 2008 but effort has increased again since 2009 with 2013 recording the second highest effort in the time series. French effort, all for bottom trawl, was reasonably constant before increasing in 2012, although it decreased slightly in 2013. Overall UK effort has stayed reasonably stable through the time series although gill net effort has fluctuated greatly since 2010. While

Dutch effort peaked in the mid-2000s. Significant pelagic trawling was again carried out between 2010 and 2012, however very little effort was recorded for 2013. Germany has also contributed sporadic effort but in 2013 reported increased effort for pelagic trawls.

Denmark submitted a revision of historical effort in 2012, which led to a major increase in their previously reported effort for the area. Effort was quite stable up to 2007, when it began to decrease. After reporting no effort in 2011 it has reported a large amount of effort for 2012 and 2013. The majority of this effort was recorded for bottom trawls, with some for pelagic trawls.

Otter trawl was by far the most important gear used, mainly by France, Denmark and the UK. UK gill net effort was stable up to 2006 after which it fluctuated somewhat, particularly since 2010. The UK also used beam trawl and had not reported effort since 2005 before reporting a small amount for 2013. The UK also reports small amounts of longline effort.

Table 5.9.1.4.1.- Deep Sea fishing effort (kW*days) 2003 – 2013 by member state ICES Sub-area IV.

Area	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
4	DEN	216490	100543	123079	121490	125089	26555	6215	16297		611372	648978
	FRA	277155	176632	261732	178577	289736	185516	173847	484416	286163	714657	551635
	GER		206302	134099	195941	15600		123550		19416	26586	89346
	IRL		4701									
	NED	619530	537132	500354	195760	222638	40084		106630	117744	201960	11880
	UK	1829589	1258991	1295075	1389745	1017100	996687	1372134	1403279	1482835	908719	1239948
4 Total		2942764	2284301	2314339	2081513	1670163	1248842	1675746	2010622	1906158	2463294	2541787

Table 5.9.1.4.2.- Deep Sea fishing effort (kW*days) 2003 – 2013 by gear and member state ICES Sub-area IV.

Area	Gear	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
4	BEAM	NED								8826			
		UK	48867	16008	13125								221
	BOTTOM TRAWLS	DEN	216490	100543	123079	121490	125089	26555	6215	16297		424424	533576
		FRA	277155	176632	261732	178577	289736	185516	173847	477056	285427	714657	551635
		GER		39270	61113	108000			123550		19416		
		UK	1429526	879032	937188	943380	803140	796779	1104686	1191459	1122309	816652	1027961
	DREDGE	FRA								7360			
	GILL	GER			3798							26586	
		UK	256434	305549	259341	399093	137976	187529	225293	200637	350642	79475	183986
	LONGLINE	UK	65295	51341	85373	46543	11094	8434	41765	10672	8566	12117	26648
	NONE	UK											1007
	PELAGIC TRAWLS	DEN										186948	115402
		GER		167032	69188	87941	15600						89346
		IRL		4701									
		NED	619530	537132	500354	195760	222638	40084		97804	117744	201960	11880
		UK	28560	7061			64890						
	POTS	UK	907			729		3945	390	212	1153	75	125
	TRAMMEL	FRA									736		
		UK			48					299	165	400	
4 Total			2942764	2284301	2314339	2081513	1670163	1248842	1675746	2010622	1906158	2463294	2541787

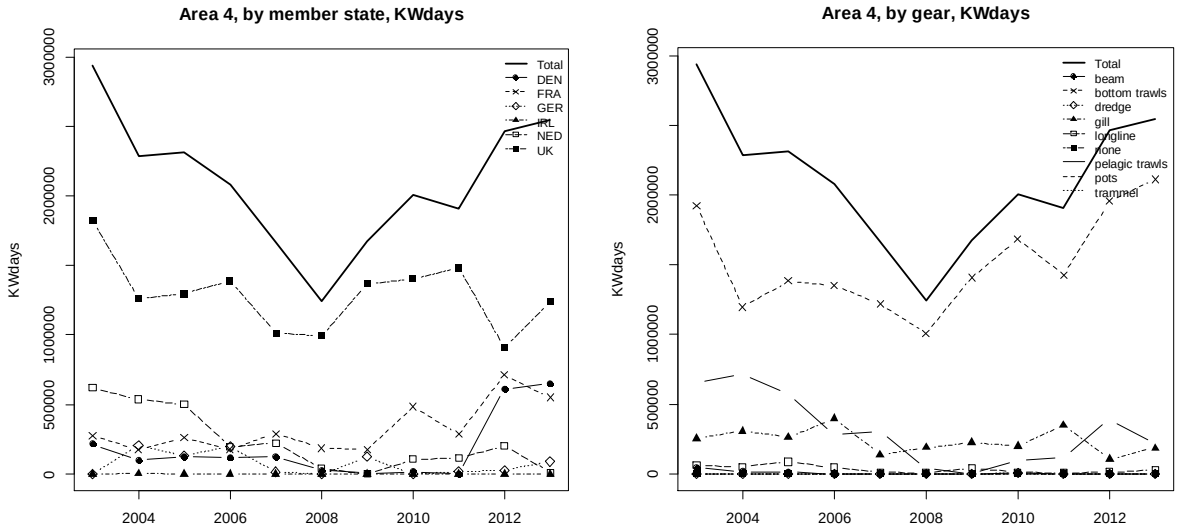


Figure 5.9.1.4.1. Deep Sea fishing effort (kW*days), 2003 – 2013, by member state and by gear, in ICES Sub-area IV EU.

5.9.1.5 Fishing effort in ICES area V

Deepwater V EU

Four countries, France, Netherlands and UK and Germany have contributed effort in this area (Tables 5.9.1.5.1 and 5.9.1.5.2 and Figure 5.9.1.5.1). In the EU portion, French effort has dominated throughout the series and remained high up to 2009. This effort had dropped from historical levels by 90% by 2011 but began to increase again in 2012. UK effort showed a marked decline since 2004 and is now at quite a low level.

The predominant gear used was otter trawl, by France and the UK, but this effort has decreased in recent years. Gill net effort by France ceased in 2009 and by the UK in 2006. Netherlands pelagic trawl effort has decreased during the time period and has ceased reporting effort since 2010. German effort in the middle part of the time series was for both gill nets and pelagic trawls. The UK reported small effort for longlines for 2013.

Table 5.9.1.5.1.- Deep Sea fishing effort (kW*days) 2003 – 2013 by member state ICES Sub-area V EU.

Area	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
5 EU	FRA	1231117	1203179	992021	981544	1177248	947792	947792	381100	96200	131350	194758.33
	GER	4851	4942	60375	12742	2600						
	NED	117600	175353	80010	31618	11453	33971		6600			
	UK	187245	250636	59417	23658	296	11228	20837	41132	5877	840	6130
5 EU Total		1540813	1634110	1191823	1049562	1191597	992991	968629	428832	102077	132190	200889

Table 5.9.1.5.2.- Deep Sea fishing effort (kW*days) 2003 – 2013 by gear and member state ICES Sub-area V EU.

Area	Gear	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
5 EU	BEAM	FRA	1519	12288									
	BOTTOM TRAWLS	FRA	1195742	1102571	921365	927080	1111008	793232	793232	381100	96200	131350	194758.33
		UK	57191	84681	14668	15854	296	11228	20837	37747	5877	840	5883
	GILL	FRA	33856	88320	70656	54464	66240	154560	154560				
		GER	4851										
		UK	130054	106655	41530	7804							
	LONGLINE	UK			3219					3385			247.5
	PELAGIC TRAWLS	GER		4942	60375	12742	2600						
		NED	117600	175353	80010	31618	11453	33971		6600			
		UK		59300									
5 EU Total			1540813	1634110	1191823	1049562	1191597	992991	968629	428832	102077	132190	200889

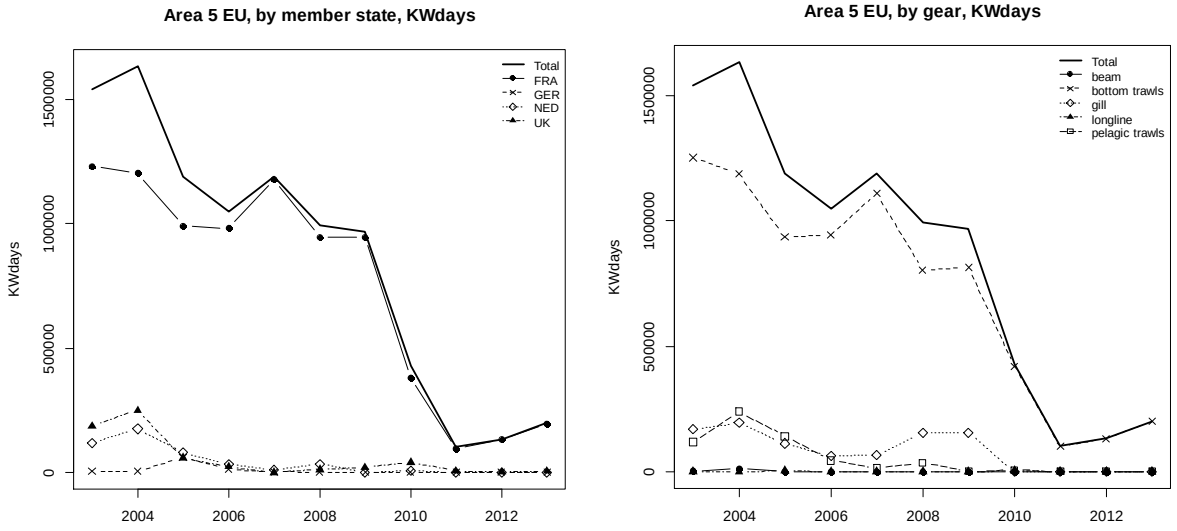


Figure 5.9.1.5.1. Deep Sea fishing effort (kW*days), 2003 – 2013, by member state and by gear, in ICES Sub-area V EU. .

Western Waters V EU

Effort within this area has declined over time, and the pace of decline had quickened in the last number of years. By 2011 effort was only approximately 9% of that recorded for 2007. However a slight increase in effort has been recorded in the last two years. Historically bottom trawls, gill nets and pelagic trawl by France, the UK and the Netherlands accounted for the majority of the effort. Since 2009 pelagic trawl and gill nets have almost ceased, and in 2013 the majority of bottom trawl effort was reported to France, with a small amount by the UK, (Table 5.9.1.5.3. and Figure 5.9.1.5.2). In 2013 the UK also reported a small amount of effort for gill nets and longlines.

Table 5.9.1.5.3.- Effort (kW*days) by country, gear and vessel size group within ICES Sub-area V EU, 2000-2013.

					2003			2004			2005			2006			2007	
Area	Gear	MS	Vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
5 EU	beam	FRA	o15m	1519	1519		12288	12288		0	0		0	0		0	0	
	bottom trawls	FRA	o15m	1202423	1195742	6681	1106396	1102571	3825	923573	921365	2208	930601	927080	3521	1117358	1111008	6350
		GER	o15m	0		0	0		0	0		0	5100		5100	0		0
		IRL	o15m	0		0	0		0	0		0	0		0	0		0
		UK	o15m	63203	57191	6012	91748	84681	7067	18087	14668	3419	17835	15854	1981	2566	296	2270
	dredge	UK	o15m	260		260	0		0	0		0	0		0	0		0
	gill	FRA	o15m	35328	33856	1472	88320	88320	0	70656	70656	0	54464	54464	0	82432	66240	16192
		GER	o15m	15876	4851	11025	5733	0	5733	0	0	0	0	0	0	0	0	0
		UK	o15m	158890	130054	28836	106655	106655	0	42147	41530	617	7804	7804	0	0	0	0
	longline	ESP	o15m	0		0	0		0	0		0	0		0	0		0
		UK	o15m	0	0	0	0	0	0	3219	3219	0	0	0	0	0	0	0
	pelagic trawls	FRA	o15m	47104		47104	14720		14720	17664		17664	55936		55936	29440		29440
		GER	o15m	102767	0	102767	4942	4942	0	70965	60375	10590	28639	12742	15897	2600	2600	0
		IRL	o15m	13057		13057	29321		29321	27100		27100	0		0	5880		5880
		NED	o15m	200693	117600	83093	341000	175353	165647	142740	80010	62730	83036	31618	51418	44686	11453	33233
		UK	o15m	52687	0	52687	94966	59300	35666	0	0	0	0	0	0	0	0	0
	pots	UK	u10m	0		0	0		0	0		0	0		0	0		0
		UK	o15m	0		0	744		744	0		0	1744		1744	0		0
5 EU Total				1893807	1540813	352994	1896833	1634110	262723	1316151	1191823	124328	1185159	1049562	135597	1284962	1191597	93365

	2008			2009			2010			2011			2012			2013		
Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
0	0		0	0		0	0		0	0		0	0		0	0	
793232	793232	0	793232	793232	0	381100	381100	0	96200	96200	0	131350	131350	0	194758	194758	0
0		0	0		0	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	375		375
12661	11228	1433	0	20837	-20837	0	37747	-37747	21118	5877	15241	0	840	-840	2778	5883	-3105
0		0	0		0	0		0	0		0	0		0	0		0
154560	154560	0	154560	154560	0	0	0	0	0	0	0	846	0	846	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	559	0	559	4851	0	4851
0		0	0		0	0		0	0		0	412		412	0		0
0	0	0	0	0	0	3681	3385	296	238	0	238	0	0	0	248	248	0
17664		17664	17664		17664	0		0	0		0	0		0	0		0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0		0	0		0	0		0	2800		2800	0		0	0		0
48530	33971	14559	43560	0	43560	6600	6600	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	16120	0	16120	0	0	0	0	0	0	0	0	0
0		0	0		0	92		92	0		0	0		0	0		0
0		0	0		0	231		231	0		0	0		0	0		0
1026647	992991	33656	1009016	968629	40387	407824	428832	-21008	120356	102077	18279	133167	132190	977	203010	200889	2121

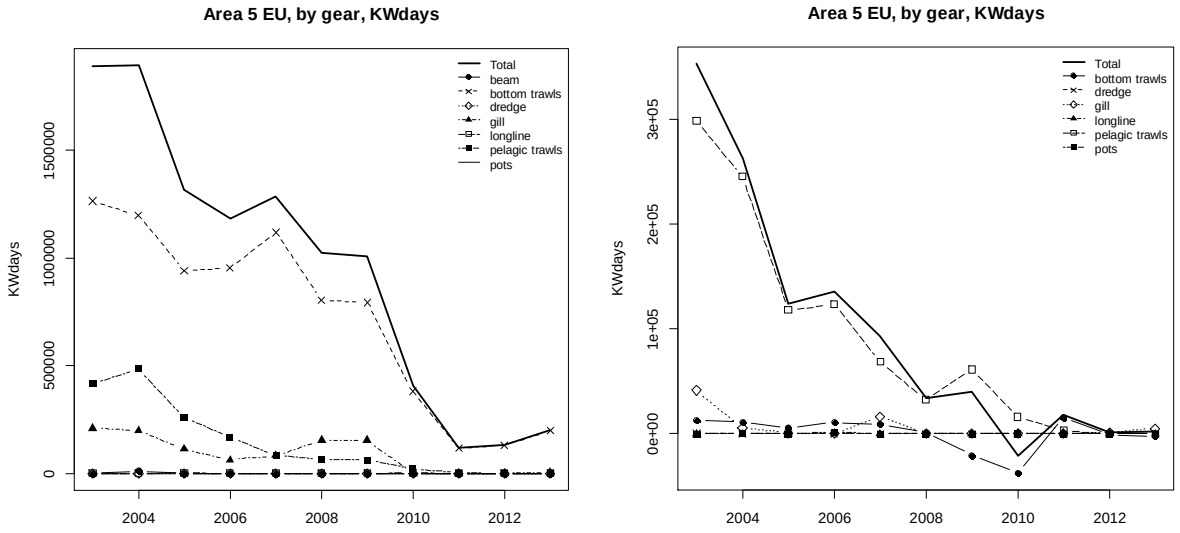


Figure 5.9.1.5.2.- Effort (kW*days) reported within ICES Sub-area V EU by gear type, 2000-2013, with (left) and without (right) reported deepwater effort.

Deepwater V non-EU

In this area bottom trawl effort of both France and the UK peaked in 2004 and has decreased slowly since. The UK reported no effort since 2010 and France has not recorded effort for 2012. German effort dropped from the mid 2000s before bottom trawl effort began rising in 2009. This effort has continued to 2013, albeit with a decrease reported this year. Germany and the Netherlands recorded pelagic trawl effort up to 2007, but this has since stopped, bar 2010 effort recorded for the Netherlands.

Table 5.9.1.5.4.- Deep Sea fishing effort (kW*days) 2000 – 2013 by member state ICES Sub-area V non-EU.

Area	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
5 non EU	FRA	664525	776742	381706	325531	294664	219992	219992	44400	7400		
	GER	256560	194758	446140	274286	23400	7281	103500	385062	244500	231906	121326
	NED	271601	15850	154495	26765	47559			7428			
	UK	917320	1071860	885811	422340	272851	114920	128263	232011			
5 non EU Total		2110006	2059210	1868152	1048922	638474	342193	451755	668901	251900	231906	121326

Table 5.9.1.5.5.- Deep Sea fishing effort (kW*days) 2000 – 2013 by gear and member state ICES Sub-area V non-EU.

Area	Gear	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
5 non EU	BEAM	FRA	6077	7400									
	BOTTOM TRAWLS	FRA	658448	769342	381706	325531	294664	219992	219992	44400	7400		
		GER	256560	174990	339900	249060		7281	103500	385062	244500	231906	121326
		UK	917320	1071860	885811	422340	272851	114920	128263	232011			
	PELAGIC TRAWLS	GER		19768	106240	25226	23400						
		NED	271601	15850	154495	26765	47559			7428			
5 non EU Total			2110006	2059210	1868152	1048922	638474	342193	451755	668901	251900	231906	121326

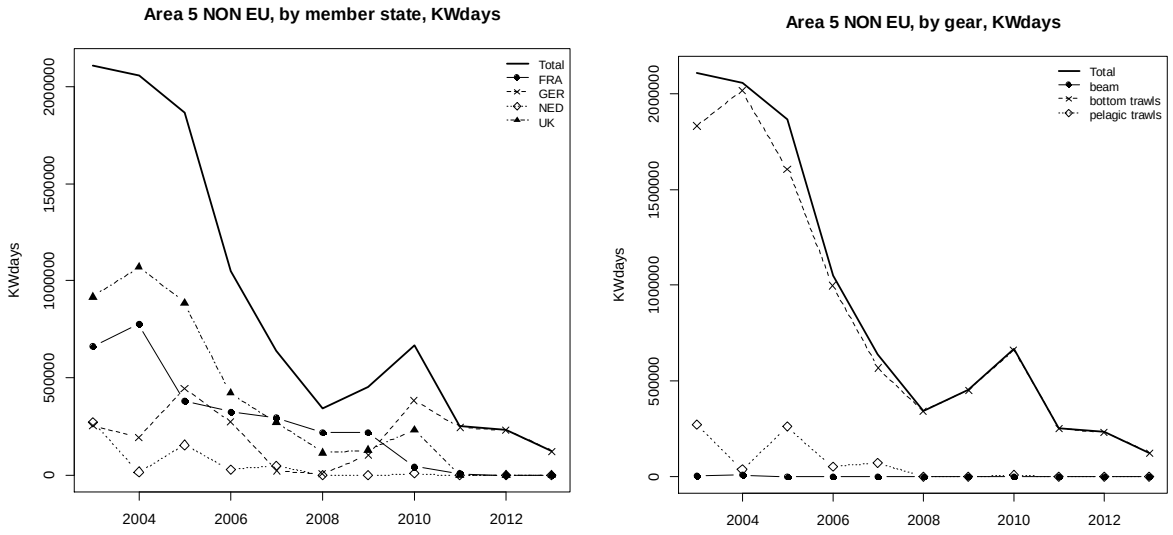


Figure 5.9.1.5.3. Deep Sea fishing effort (kW*days), 2003 – 2013, by member state and by gear, in ICES Sub-area V non-EU.

Western Waters V non-EU

Overall effort within this area has declined over time, having previously been fished by a number of nations utilising bottom and pelagic trawls (Table 5.9.1.5.6. and Figure 5.9.1.5.4).

The majority of fishing effort within the area is directed toward fisheries not covered by the western waters regulation. Fishing was principally carried out by Germany, the Netherlands, and the UK. Bottom trawling is the primary gear within the area, much of which targets deepwater fisheries. Only bottom trawl effort has been reported for 2013 primarily by Germany, with a small amount by the UK.

Pelagic trawl effort, conducted mainly by Scotland and the Netherlands, fluctuated between 2003 and 2005, at which stage effort started declining. Pelagic effort ceased in 2010.

Table 5.9.1.5.6.- Effort (kW*days) by country, gear and vessel size group within ICES Sub-area V non EU, 2000-2013.

					2003			2004			2005			2006			2007	
Area	Gear	MS	Vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
5 NON EU	beam	FRA	o15m		6077			7400			0			0			0	
	bottom trawls	DEN	o15m	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	58750	658448	-599698	29974	769342	-739368	7979	381706	-373727	12989	325531	-312542	23690	294664	-270974
		GER	o15m	369090	256560	112530	208425	174990	33435	342960	339900	3060	250260	249060	1200	137210	0	137210
		UK	o15m	1323286	917320	405966	1493053	1071860	421193	1386813	885811	501002	864014	422340	441674	569668	272851	296817
	gill	FRA	u10m	0		0	0		0	0		0	0		0	0		0
		FRA	o10t15m	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	2944		2944	0		0	0		0	0		0	0		0
	longline	UK	o15m	3608		3608	0		0	0		0	0		0	0		0
	pelagic trawls	DEN	o15m	40568		40568	0		0	0		0	0		0	0		0
		FRA	o15m	23552		23552	41216		41216	52992		52992	23552		23552	17664		17664
		GER	o15m	167013	0	167013	19768	19768	0	106240	106240	0	57020	25226	31794	23400	23400	0
		NED	o15m	522811	271601	251210	89936	15850	74086	385028	154495	230533	53530	26765	26765	81918	47559	34359
		UK	o15m	15888		15888	46080		46080	8353		8353	28980		28980	82287		82287
	pots	FRA	u10m	0		0	0		0	0		0	0		0	0		0
5 NON EU Total				2527510	2110006	423581	1928452	2059210	-123358	2290365	1868152	422213	1290345	1048922	241423	935837	638474	297363

2008			2009			2010			2011			2012			2013		
Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
	0			0			0			0			0			0	
0		0	0		0	0		0	26413		26413	0		0	0		0
1850	219992	-218142	1850	219992	-218142	60422	44400	16022	8872	7400	1472	0	0	0	0	0	0
7281	7281	0	130500	103500	27000	385062	385062	0	244500	244500	0	231906	231906	0	121326	121326	0
319704	114920	204784	414088	128263	285825	475549	232011	243538	1540	0	1540	0	0	0	1214	0	1214
0		0	0		0	438		438	0		0	0		0	0		0
0		0	0		0	0		0	292		292	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0
20800	0	20800	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	7428	7428	0	0	0	0	0	0	0	0	0	0
68337		68337	0		0	28120		28120	0		0	0		0	0		0
0		0	0		0	0		0	0		0	33		33	0		0
417972	342193	75779	546438	451755	94683	957019	668901	288118	281617	251900	29717	231939	231906	33	122540	121326	1214

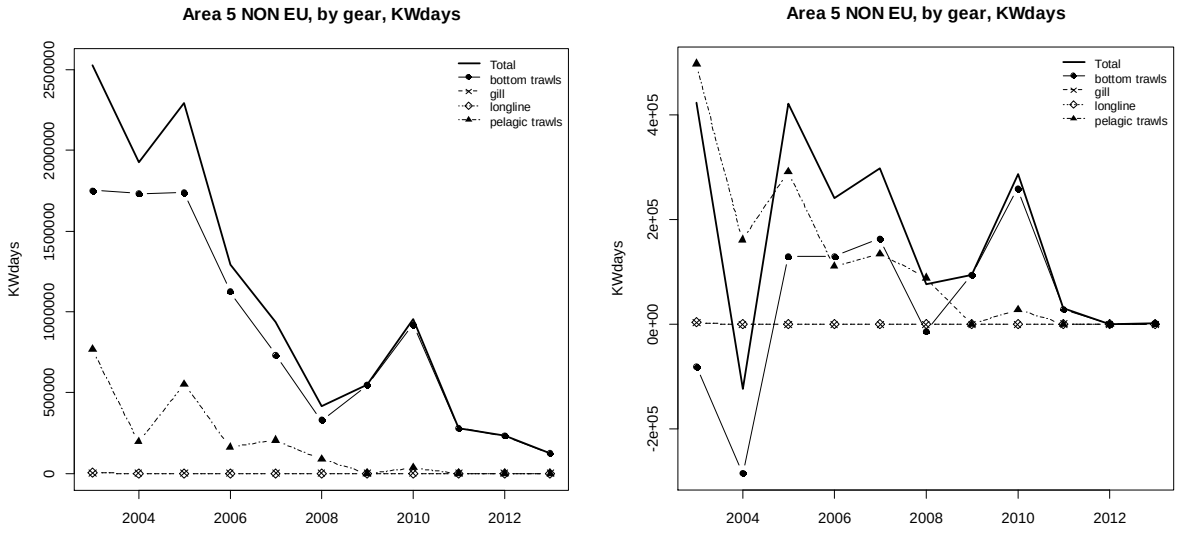


Figure 5.9.1.5.4.- Effort (kW*days) reported within ICES Sub-area V non-EU by gear type, 2000-2013, with (left) and without (right) reported deepwater effort.

5.9.1.6 Fishing effort in ICES area VI

Deepwater VI EU

Several countries fish in this area (Tables 5.9.1.6.1 and 5.9.1.6.2 and Figure 5.9.1.6.1). French, Dutch and UK effort dominated throughout the series. French effort has been in decline since 2004 but seems to have stabilised in the last three years. UK effort has decreased since a peak in 2003 but has also stabilised in the last four years. Bottom trawl is the predominant gear used in area VI followed by pelagic trawling and gill nets.

In addition to otter trawl, UK effort comprises all the other gear types. UK gill net activity had declined up to 2010 but showed an increase again in 2011, with similar effort for 2013. UK longline effort, which had declined between 2008 and 2009, has begun to increase again since 2010.

Irish effort is primarily for bottom trawl, with some effort recorded for pelagic trawl between 2000 and 2004. Bottom trawl effort decreased after 2005 and has fluctuated since.

Dutch effort, which consisted entirely of pelagic trawls, fluctuated during the early 2000s. This stabilised between 2006 and 2010 even though no effort was recorded in 2009. This effort decreased in 2011 and 2012 but has increased again in 2013. German effort has been sporadic, originally concentrated between 2003 and 2007, with gill nets and pelagic trawls being used. In 2010 German effort was recorded for gill nets and in 2012 and 2013 was recorded for pelagic trawls.

Spain reported effort for 2009, 2012 and 2013, for bottom trawls and longlines. As Spain did not provide data for 2010 and 2011 we are unable to comment on trends. Denmark reported pelagic trawl effort for the first time in 2013.

Table 5.9.1.6.1.- Deep Sea fishing effort (kW*days) 2000 – 2013 by member state ICES Sub-area VI EU.

Area	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
6 EU	DEN											87421
	ESP							199237			294198	285864
	FRA	5332009	5605366	5279115	4105642	3912664	3795716	3795716	3097857	2063204	2082197	2267419
	GER	441	557611	335978	356344	215066			34839		312000	234342
	IRL	306629	220854	254537	63679	160602	132217	32282	81929	16578	34122	38285
	NED	604027	2937769	1737822	1054019	1061055	1013096		988482	658560	529201	1000450
	UK	5298339	4552120	2924540	1834797	1574207	925284	1362479	1221865	1064186	972123	972770
6 EU Total		11541445	13873720	10531992	7414481	6923594	5866313	5389714	5424972	3802528	4223841	4886550

Table 5.9.1.6.2.- Deep Sea fishing effort (kW*days) 2000 – 2013 by gear and member state ICES Sub-area VI EU.

Area	Gear	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
6 EU	BEAM	FRA	54693	95526									
		UK	17964	50267	14625								
	BOTTOM TRAWLS	ESP							142583			150200	109230
		FRA	4967172	5355877	5116610	3995234	3543821	3594454	3594454	2997921	2046576	2063044	2224731
		GER		12530									
		IRL	299429	192885	253337	63679	148902	132217	32282	81929	16578	33413	38285
		UK	3765838	2782751	1794175	1225019	942905	665645	1145465	959278	712339	652372	463276
	DREDGE	UK	12688										
	GILL	FRA	307424	111848	124528	100472	286283	161800	161800	99936	16628	19153	42688
		GER	441	66848	29540	15192				34839			
		UK	1013475	841609	690287	147742	90561	105292	50425	69752	123079	272	125143
	LONGLINE	ESP							56654			143998	176634
		FRA				9936	82560	39462	39462				
		IRL	7200	17000	1200		11700						
		UK	439338	561125	387085	462036	531318	149543	166589	192835	228768	319479	375287
	NONE	IRL										709	
		UK											9063
	PELAGIC TRAWLS	DEN											87421
		FRA	2720	42115	37977								
		GER		478233	306438	341152	215066					312000	234342
		IRL		10969									
		NED	604027	2937769	1737822	1054019	1061055	1013096		988482	658560	529201	1000450
		UK	5120	297769	38368								
	POTS	UK	43916	18599			9423	4804					
6 EU Total			11541445	13873720	10531992	7414481	6923594	5866313	5389714	5424972	3802528	4223841	4886550

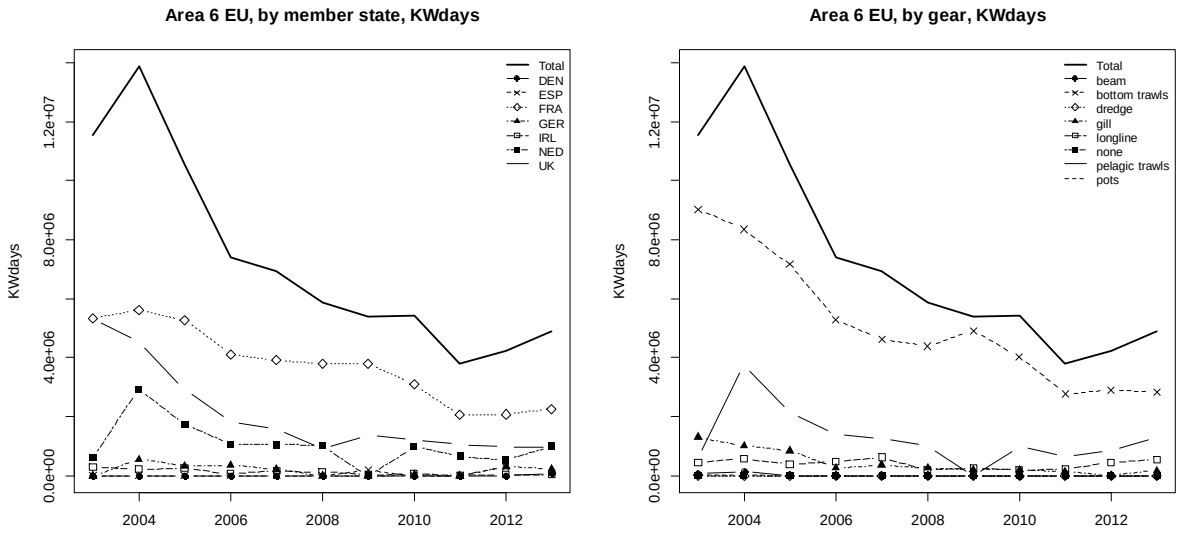


Figure 5.9.1.6.1. Deep Sea fishing effort (kW*days), 2003 – 2013, by country and by gear, in ICES Sub-area VI EU.

Western Waters VI EU

There has been a gradual decline in effort within Area VI EU over the period (Table 5.9.1.6.3. and Figure 5.9.1.6.2.)

The influence of deepwater fisheries in Area VI EU is less than in Area V, here the majority of annual effort is directed to non-deepwater fisheries. A variety of nations operate within this area.

Bottom trawling and pelagic trawling are the primary gear categories within this area, with pots being the next most important.

Bottom trawling effort has declined throughout the time series although it appears to have stabilised in the last four years; the UK continues to dominate bottom trawl effort, with large contributions from France (directed toward deepwater fisheries), and to a lesser extent Ireland.

Pelagic trawl effort peaked in 2004 and was in decline until 2010. Effort levels increased again in 2013 however. Historically pelagic effort was dominated by the Netherlands, with major additional effort from UK, Germany and Ireland. Lithuania provided pelagic effort data for 2009 and 2011.

Pots provide the third highest level of effort. Effort has been quite stable through the time series. The UK provides the greatest effort, with further contributions from Ireland, and to a small extent Germany. A number of other gear categories are reported from this area, occurring at comparatively low levels. These include, dredging, longlines and gillnets. Gillnetting previously showed higher levels of effort, the majority of which was associated with deepwater fisheries, which have subsequently declined since 2006 to low levels. UK, France and Germany carry out demersal gillnetting at lower levels.

Table 5.9.1.6.3.- Effort (kW*days) by country, gear and vessel size group within ICES Sub-area VI EU, 2000-2013.

					2003			2004			2005			2006			2007	
Area	Gear	MS	Vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
6 EU	beam	UK	o10t15m	442		442	0		0	0		0	0		0	0		0
		BEL	o15m	19005		19005	18103		18103	8566		8566	4415		4415	2356		2356
		FRA	o15m	25827	54693	-28866	37257	95526	-58269	0	0	0	0	0	0	0	0	0
		IRL	o15m	0		0	38963		38963	5068		5068	6335		6335	0		0
		UK	o15m	149173	17964	131209	263075	50267	212808	146527	14625	131902	101694	0	101694	1803	0	1803
	bottom trawls	UK	u10m	531160		531160	502089		502089	487586		487586	572478		572478	513245		513245
		FRA	o10t15m	23547		23547	0		0	0		0	0		0	0		0
		IRL	o10t15m	93897		93897	61003		61003	31160		31160	18456		18456	13467		13467
		UK	o10t15m	1897472	0	1897472	1860586	6994	1853592	1733081	0	1733081	1743881	0	1743881	1807461	0	1807461
		BEL	o15m	0		0	0		0	0		0	1766		1766	795		795
		DEN	o15m	162941		162941	98707		98707	0		0	11520		11520	0		0
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	4829354	4967172	-137818	4713492	5355877	-642385	5117917	5116610	1307	4263214	3995234	267980	3942141	3543821	398320
		GER	o15m	19191	0	19191	12530	12530	0	35586	0	35586	22797	0	22797	23652	0	23652
		IRL	o15m	2053249	299429	1753820	1544175	192885	1351290	1290918	253337	1037581	1412180	63679	1348501	1396292	148902	1247390
		NED	o15m	9840		9840	0		0	0		0	0		0	0		0
		UK	o15m	12711745	3765838	8945907	10536993	2775757	7761236	7965045	1794175	6170870	6617907	1225019	5392888	6685368	942905	5742463
	dredge	UK	u10m	87909		87909	104545		104545	80489		80489	38429		38429	42186		42186
		FRA	o10t15m	7332		7332	1128		1128	0		0	0		0	0		0
		IRL	o10t15m	680		680	397		397	397		397	556		556	884		884
		UK	o10t15m	247725		247725	275102		275102	252443		252443	181612		181612	131230		131230
		IRL	o15m	10260		10260	19884		19884	0		0	0		0	19404		19404
		UK	o15m	1690118	12688	1677430	1401835	0	1401835	1257717	0	1257717	979503	0	979503	759475	0	759475
	gill	UK	u10m	0		0	0		0	56		56	468		468	1800		1800
		IRL	o10t15m	735		735	1711		1711	192		192	2379		2379	7351		7351
		UK	o10t15m	5005		5005	246		246	2038		2038	1044		1044	553		553
		FRA	o15m	109888	307424	-197536	159958	111848	48110	268726	124528	144198	276528	100472	176056	228799	286283	-57484
		GER	o15m	138094	441	137653	134492	66848	67644	132800	29540	103260	56548	15192	41356	161064	0	161064
		IRL	o15m	19232		19232	20402		20402	0		0	1175		1175	5995		5995
		UK	o15m	1090167	1013475	76692	841609	841609	0	777976	690287	87689	235438	147742	87696	155730	90561	65169
	longline	FRA	u10m	0		0	0		0	0		0	0		0	0		0
		UK	u10m	25		25	0		0	0		0	51		51	241		241
		FRA	o10t15m	0		0	0		0	0		0	0		0	0		0
		IRL	o10t15m	0		0	0		0	0		0	0		0	0		0
		UK	o10t15m	0		0	0		0	1574		1574	0		0	0		0
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	0	0	0	0	0	0	0	0	0	163130	9936	153194	445344	82560	362784
		IRL	o15m	7200	7200	0	18400	17000	1400	3000	1200	1800	0	0	0	11700	11700	0
		UK	o15m	507464	439338	68126	610216	561125	49091	621156	387085	234071	684262	462036	222226	844213	531318	312895
	none	UK	u10m	110078		110078	125306		125306	120513		120513	163399		163399	124414		124414
		IRL	o10t15m	0		0	0		0	0		0	0		0	0		0
		UK	o10t15m	52102		52102	26746		26746	42054		42054	50920		50920	61281		61281
		IRL	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		UK	o15m	0	0	0	112	0	112	195	0	195	0	0	0	2223	0	2223
	pelagic trawls	IRL	o10t15m	172		172	0		0	320		320	4320		4320	2512		2512
		UK	o10t15m	0		0	157		157	0		0	0		0	0		0
		DEN	o15m	74864	0	74864	289874	0	289874	180965	0	180965	820379	0	820379	132815	0	132815
		FRA	o15m	379243	2720	376523	437400	42115	395285	197616	37977	159639	305922	0	305922	324841	0	324841
		GER	o15m	682432	0	682432	762402	478233	284169	638384	306438	331946	1143771	341152	802619	1161097	215066	946031
		IRL	o15m	2591699	0	2591699	2755700	10969	2744731	1534869	0	1534869	1754981	0	1754981	1463653	0	1463653
		NED	o15m	2400041	604027	1796014	6156392	2937769	3218623	5544240	1737822	3806418	4327834	1054019	3273815	4430203	1061055	3369148
		UK	o15m	6255758	5120	6250638	6537021	297769	6239252	5085116	38368	5046748	3494402	0	3494402	3280592	0	3280592
		LIT	o40m	0		0	0		0	0		0	0		0	0		0
	pots	UK	u10m	2754689	0	2754689	2779505	0	2779505	3090630	0	3090630	3766452	0	3766452	3726681	22	3726659
		IRL	o10t15m	42987		42987	51068		51068	19007		19007	123069		123069	201366		201366
		UK	o10t15m	1284817		1284817	1421250		1421250	1532009		1532009	1595331		1595331	1875227		1875227
		GER	o15m	24696		24696	49833		49833	55125		55125	98384		98384	92176		92176
		IRL	o15m	619014		619014	631838		631838	584531		584531	441124		441124	462973		462973
		UK	o15m	818174	43916	774258	627435	18599	608836	636592	0	636592	663098	0	663098	1032399	9401	1022998
	trammel	UK	u10m	0		0	0		0	0		0	0		0	368		368
		IRL	o10t15m	0		0	0		0	0		0	448		448	0		0
		UK	o10t15m	636		636	435		435	0		0	0		0	0		0
		IRL	o15m	0		0	0		0	12000		12000	0		0	0		0
		UK	o15m	27508		27508	0		0	0		0	0		0	0		0
6 EU Total				44567587	11541445	33026142	45929372	13873720	32055652	39494184	10531992	28962192	36151600	7414481	28737119	35577370	6923594	28653776

	2008			2009			2010			2011			2012			2013		
Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
0		0	0		0	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0		0	0		0	0		0	0		0	0		0	6660		6660
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	302	0	302
504922		504922	454757		454757	424256		424256	377364		377364	425621		425621	407540		407540
0		0	0		0	0		0	0		0	0		0	0		0
16261		16261	6016		6016	12798		12798	7903		7903	6682		6682	9586		9586
1646968	0	1646968	1527038	531	1526507	1421357	0	1421357	1270111	0	1270111	1337110	0	1337110	1226980	0	1226980
0		0	0		0	1176		1176	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0
0	0	0	0	142583	-142583	0	0	0	0	0	0	174309	150200	24109	145901	109230	36671
3963300	3594454	368846	3963300	3594454	368846	3095528	2997921	97607	2151504	2046576	104928	2143724	2063044	80680	2328765	2224731	104034
3060	0	3060	4854	0	4854	6957	0	6957	0	0	0	1103	0	1103	0	0	0
1195738	132217	1063521	801585	32282	769303	919701	81929	837772	825742	16578	809164	692905	33413	659492	701682	38285	663397
0		0	0		0	0		0	5464		5464	884		884	0		0
6931684	665645	6266039	7319198	1144934	6174264	6838428	959278	5879150	6705986	712339	5993647	6832479	652372	6180107	5938301	463276	5475025
67896		67896	52079		52079	54703		54703	64477		64477	94262		94262	64449		64449
0		0	0		0	0		0	0		0	0		0	0		0
0		0	0		0	0		0	640		640	12798		12798	0		0
169174		169174	158632		158632	165979		165979	170670		170670	245252		245252	169221		169221
7938		7938	0		0	0		0	0		0	0		0	221		221
898415	0	898415	912479	0	912479	836840	0	836840	740982	0	740982	1116828	0	1116828	1054098	0	1054098
6493		6493	0		0	0		0	0		0	0		0	464		464
5421		5421	1140		1140	551		551	2075		2075	75		75	9845		9845
9057		9057	0		0	0		0	0		0	0		0	0		0
649678	161800	487878	649678	161800	487878	375934	99936	275998	633039	16628	616411	494285	19153	475132	532422	42688	489734
141492	0	141492	91269	0	91269	114683	34839	79844	107771	0	107771	65261	0	65261	102750	0	102750
4528		4528	2135		2135	0		0	0		0	0		0	2745		2745
186312	105292	81020	150938	50425	100513	192879	69752	123127	218743	123079	95664	177571	272	177299	211226	125143	86083
0		0	0		0	1419		1419	0		0	0		0	0		0
740		740	730		730	410		410	2215		2215	1296		1296	2934		2934
0		0	0		0	0		0	0		0	0		0	110		110
0		0	0		0	1397		1397	7470		7470	3471		3471	2082		2082
0		0	0		0	0		0	0		0	0		0	0		0
0	0	0	0	56654	-56654	0	0	0	0	0	0	459895	143998	315897	376685	176634	200051
277750	39462	238288	277750	39462	238288	189072	0	189072	172250	0	172250	205044	0	205044	145920	0	145920
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
406839	149543	257296	703396	166589	536807	719384	192835	526549	694754	228768	465986	523092	319479	203613	435885	375288	60597
116648		116648	164375		164375	182992		182992	210052		210052	208226		208226	224580		224580
218		218	0		0	835		835	0		0	69		69	192		192
47721		47721	50969		50969	43058		43058	41387		41387	57776		57776	73247		73247
0	0	0	0	0	0	0	0	0	0	0	0	13315	709	12606	6381	0	6381
20908	0	20908	48410	0	48410	55669	0	55669	57503	0	57503	47269	0	47269	20243	9063	11180
2092		2092	640		640	1488		1488	12652		12652	4097		4097	5451		5451
0		0	0		0	0		0	0		0	0		0	0		0
99889	0	99889	0	0	0	0	0	0	119982	0	119982	94838	0	94838	44114	87421	-43307
257796	0	257796	257796	0	257796	233392	0	233392	138664	0	138664	39480	0	39480	211232	0	211232
684150	0	684150	484479	0	484479	367736	0	367736	1073742	0	1073742	739578	312000	427578	1714512	234342	1480170
1645492	0	1645492	1580228	0	1580228	1385132	0	1385132	1637878	0	1637878	2075984	0	2075984	1692466	0	1692466
3824546	1013096	2811450	2815153	0	2815153	1557718	988482	569236	1258498	658560	599938	1667234	529201	1138033	2428638	1000450	1428188
2237211	0	2237211	2583861	0	2583861	2163861	0	2163861	2471226	0	2471226	2078499	0	2078499	2477459	0	2477459
0		0	29520		29520	0		0	150400		150400	0		0	0		0
3317460	0	3317460	3455920	0	3455920	3601096	0	3601096	3215981	0	3215981	3092543	0	3092543	3166100	0	3166100
165038		165038	175838		175838	207251		207251	145184		145184	165707		165707	168204		168204
1822401		1822401	1846775		1846775	2055192		2055192	1760528		1760528	1747966		1747966	1644036		1644036
34398		34398	46978		46978	75535		75535	63157		63157	7991		7991	3954		3954
394266		394266	327243		327243	297001		297001	209050		209050	130315		130315	144229		144229
629975	4804	625171	601583	0	601583	711649	0	711649	728133	0	728133	549722	0	549722	509354	0	509354
0		0	0		0	610		610	342		342	225		225	0		0
0		0	0		0	0		0	359		359	0		0	64		64
0		0	0		0	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0
32393875	5866313	26527562	31546742	5389714	26157028	28313667	5424972	22888695	27453878	3802528	23651350	27734781	4223841	23510940	28411230	4886551	23524679

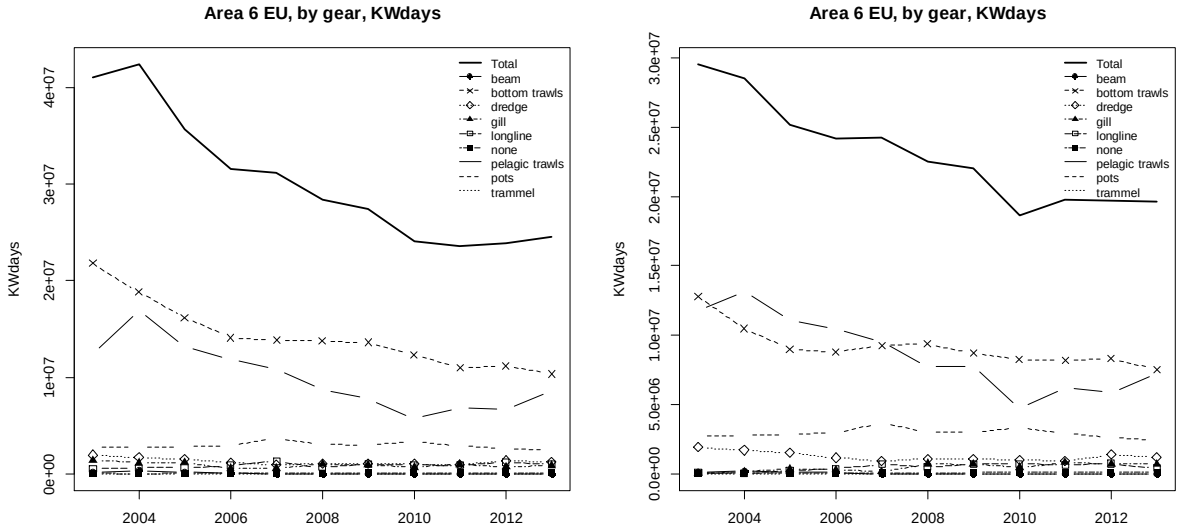


Figure 5.9.1.6.2.- Effort (kW*days) reported within ICES Sub-area VI EU by gear type, 2000-2013, with (left) and without (right) reported deepwater effort.

Deepwater VI non-EU

The effort in Area VI non-EU peaked in 2004 and has been in decline since, (Tables 5.9.1.6.4, 5.9.1.6.5 and Figure 5.9.1.6.3). This effort has been dominated by the UK, however UK effort has dropped by more than 99% since its peak in 2004. In 2012 Spain recorded effort in this area for bottom trawls for the first time, and has again reported effort for 2013.

Bottom trawl was the most important method, with some gill net effort being reported up to 2007 by the UK. Netherlands carried out pelagic trawls for a number of years early in the time series but this ceased in 2004.

Table 5.9.1.6.4.- Deep Sea fishing effort (kW*days) 2000 – 2013 by member state ICES Sub-area VI non-EU.

Area	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
6 NON EU	ESP										215918	135632
	EST			12656	18080							
	FRA											3700
	NED	4398	139938									
	PRT		72900									
	UK	1222142	1398142	706837	529460	367291	170600	99545	135929	41990	8514	28982
6 NON EU Total		1226540	1610980	719493	547540	367291	170600	99545	135929	41990	224432	168314

Table 5.9.1.6.5.- Deep Sea fishing effort (kW*days) 2003 – 2013 by gear and member state ICES Sub-area VI non-EU.

Area	Gear	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
6 NON EU	BOTTOM TRAWLS	ESP										215918	135632
		EST			12656	18080							
		FRA											3700
		UK	871779	1024477	548210	451499	316165	151087	99545	135929	41990	8514	12302
	GILL	UK	342362	373665	158627	77961	51126						16680
	LONGLINE	PRT		72900									
		UK	8001										
	PELAGIC TRAWLS	NED	4398	139938									
	POTS	UK						19513					
6 NON EU Total			1226540	1610980	719493	547540	367291	170600	99545	135929	41990	224432	168314

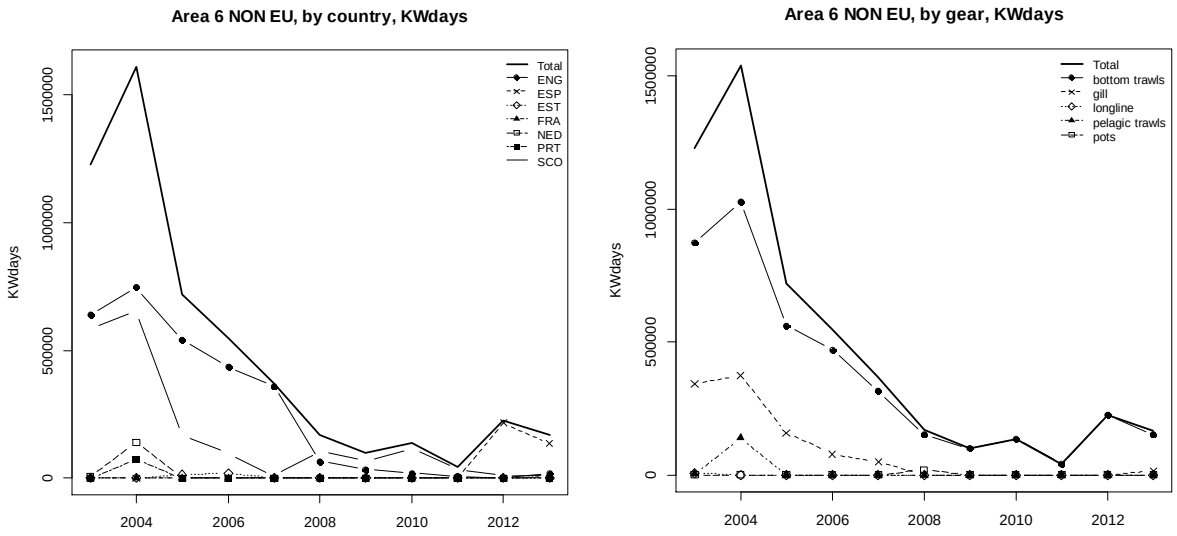


Figure 5.9.1.6.3. Deep Sea fishing effort (kW*days), 2003 – 2013, by country and by gear, in ICES Sub-area VI non-EU.

Western Waters VI non-EU

Effort has been declining within this area over time, having peaked in 2004. Effort had increased slightly between 2008 and 2010, and has stabilised since (Table 5.9.1.6.6. and Figure 5.9.1.6.4.).

Bottom trawling is the primary activity, primarily carried out by UK vessels, but Spain reported effort for 2012 and 2013, and France reported a small amount for 2013. Early in the time series much of this trawl effort had been directed towards deepwater fisheries, however this trend has reversed since 2009. UK effort, which had decreased to 2008, increased between 2009 and 2010, but has been in decline since.

At the beginning of the time series, gillnetting also occurred, carried out by UK and Portugal, and much of this effort was directed toward deepwater fisheries. Since 2006 effort within this category has been minimal with the UK only reporting data for 2009 and 2013. A period of pelagic trawling which occurred between 2003 and 2005 has ceased. Effort by Germany using pots from 2010 to 2013 seems to be directed at deep-water red crab

Table 5.9.1.6.6.- Effort (kW*days) by country, gear and vessel size group within ICES Sub-area VI non-EU, 2003-2013.

					2003			2004			2005			2006			2007	
Area	Gear	MS	vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
6 NON EU	bottom trawls	DEN	o15m	6371		6371	0		0	0		0	0		0	0		0
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		UK	o15m	972479	871779	100700	1079860	1024477	55383	553154	548210	4944	473999	451499	22500	365187	316165	49022
		EST	o40m		0			0			12656			18080			0	
		LIT	o40m	0		0	0		0	0		0	0		0	0		0
	gill	FRA	o15m	0		0	0		0	0		0	0		0	0		0
		PRT	o15m	0		0	51136		51136	0		0	0		0	0		0
		UK	o15m	353686	342362	11324	373665	373665	0	163450	158627	4823	77961	77961	0	125577	51126	74451
	longline	PRT	o15m	0	0	0	136080	72900	63180	0	0	0	0	0	0	0	0	0
		UK	o15m	8001	8001	0	0	0	0	0	0	0	0	0	0	0	0	0
	pelagic trawls	GER	o15m	9884		9884	0		0	0		0	0		0	0		0
		NED	o15m	214451	4398	210053	254730	139938	114792	88605	0	88605	0	0	0	0	0	0
		UK	o15m	154562		154562	0		0	0		0	0		0	0		0
	pots	GER	o15m	0		0	0		0	0		0	0		0	0		0
		UK	o15m	24797	0	24797	0	0	0	0	0	0	0	0	0	35364	0	35364
				1744231	1226540	517691	1895471	1610980	284491	805209	719493	98372	551960	547540	22500	526128	367291	158837

	2008			2009			2010			2011			2012			2013	
Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
0		0	0		0	0		0	0		0	0		0	0		0
0	0	0	0	0	0	0	0	0	0	0	0	230572	215918	14654	142820	135632	7188
0	0	0	0	0	0	2427	0	2427	0	0	0	0	0	0	3700	3700	0
159661	151087	8574	215958	99545	116413	435594	135929	299665	285077	41990	243087	68660	8514	60146	83835	12302	71533
	0			0			0			0			0			0	
0		0	0		0	0		0	0		0	53718		53718	0		0
0		0	0		0	0		0	0		0	818		818	0		0
0		0	0		0	0		0	0		0	0		0	0		0
0	0	0	15317	0	15317	0	0	0	0	0	0	0	0	0	16680	16680	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	645	0	645	0	0	0
0		0	0		0	0		0	0		0	0		0	0		0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0		0	0		0	0		0	0		0	0		0	0		0
0		0	0		0	39709		39709	91296		91296	23101		23101	44149		44149
19513	19513	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
179174	170600	8574	231275	99545	131730	477730	135929	341801	376373	41990	334383	377514	224432	153082	291184	168314	122870

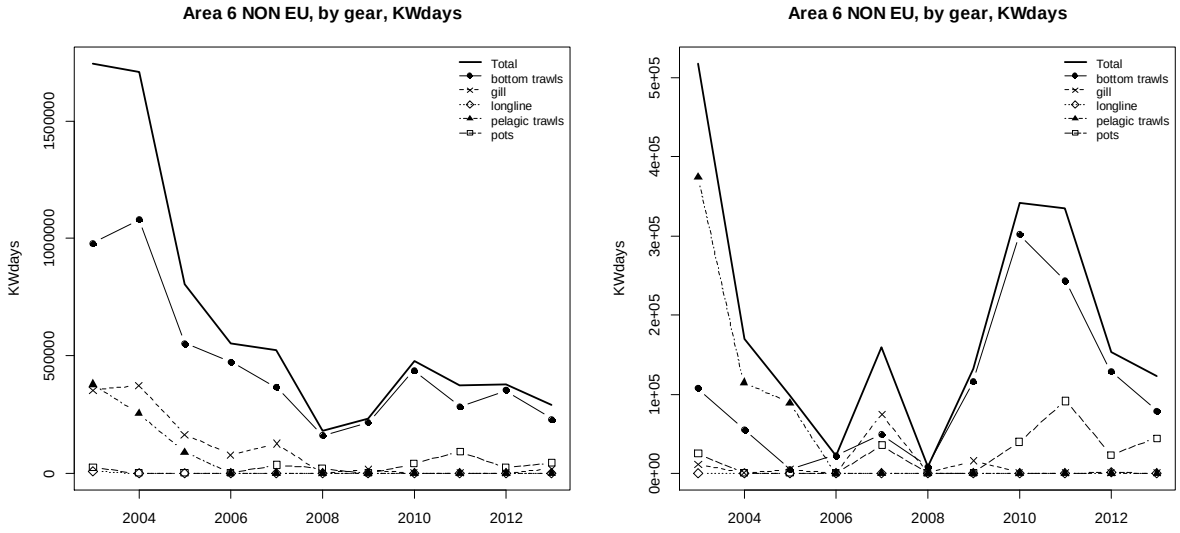


Figure 5.9.1.6.4.- Effort (kW*days) reported within ICES Sub-area VI non-EU by gear type, 2003-2013, with (left) and without (right) reported deepwater effort.

5.9.1.7 Fishing effort in ICES area VII excluding VIId

Deepwater VII EU no VIId

Six countries supplied data indicating activity in this area (Tables 5.9.1.7.1, 5.9.1.7.2 and Figure 5.9.1.7.1). Germany provided data from 2003 to 2007 and 2013, while Spain provided data for 2009, 2012 and 2013. UK, France and Ireland were the main countries providing data for bottom trawl effort with the Netherlands also reporting pelagic trawl effort in this area throughout the time series

This area has been broken up into Area VII (EU no VIId), EU VIId, and non EU. EU VIId is the eastern English channel and is often associated with the North Sea as much as the English Channel.

With the exception of the UK, effort of most of the other nations has dropped dramatically. For the UK effort peaked in 2004 at 7.5 million KWdays before it began dropping. However UK effort has been relatively stable since 2009. French effort has also declined by just over 60% in the time period and for Ireland it is even more striking, down from 1.6 million KWdays to just under 300,000 KWdays.

The main effort in this area is recorded for UK bottom trawl effort, followed by France and Ireland. Gill net effort in France and the UK has been declining since reaching a peak in 2004. While UK gill net effort has stabilised since 2006 French effort has continued to decline with very low effort reported for 2013. Between 2006 and 2008 the UK longline effort was nearly as important as gill nets. This effort decreased quickly between 2009 and 2011, before showing an increase again since 2012. Spain also reported considerable longline effort for 2012 and 2013.

The UK reported effort by beam trawls and trammel nets. After decreasing between 2003 and 2008 UK beam effort has been relatively stable since 2009. UK trammel net effort reached a series low in 2010 but has been increasing again since.

The Netherlands has been responsible for most of the pelagic trawling. This effort fluctuated between 2000 and 2005, and became intermittent at low levels after that. The Netherlands reported quite high effort again for 2010 which subsequently decreased again in 2011 and 2012, but has increased once more in 2013. Small amounts of pelagic trawl effort have been reported by France for 2010 and 2011 and by Germany in 2013.

Table 5.9.1.7.1. Deep Sea fishing effort (kW*days) 2003 – 2013 by member state ICES Sub-area VII EU no VIId.

Area	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
7 EU no 7d	ESP							374808			3827062	2874481
	FRA	1544420	1236669	1591217	1633554	1424224	993960	983409	966107	688285	827899	824853
	GER	111935	318242	344403		8398						9023
	IRL	3290922	2495796	2236290	1158833	811713	607795	128419	107778	130793	192751	295831
	NED	150544	636250	299936	22652		53536		482503	225060	111619	601920
	UK	7421777	7144301	6443025	4882918	5278743	4267208	2883553	3025967	2701090	2359831	2580782
7 EU no 7d Total		12519598	11831258	10914871	7697957	7523078	5922499	4370189	4582355	3745228	7319162	7186890

Table 5.9.1.7.2. Deep Sea fishing effort (kW*days) 2003 – 2013 by gear and member state ICES Sub-area VII EU no VIId.

Area	Gear	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
7 EU no 7d	BEAM	IRL			17507							1547	
		UK	1780538	1655828	1630596	910940	974833	788631	434315	333813	322008	381556	406900
	BOTTOM TRAWLS	ESP							154898			2528775	1750355
		FRA	1142499	944045	1027472	1228501	1011353	705892	695341	757599	576611	680547	802220
		IRL	3036176	2473880	2187958	1127858	749478	603370	128419	107778	130793	181987	295831
		NED								3385			
		UK	3186308	2848303	2726378	2661087	2918861	2046945	1813503	1873506	1761370	1073435	1206521
	DREDGE	FRA								110			
	GILL	ESP							8985			1588	
		FRA	396953	261655	555657	351137	245631	219877	219877	130161	107213	136084	922
		GER	111935	185086	189137		8398						
		IRL	165956	18916	11875	30975	30385	4425					
		UK	1922008	2268567	1663355	640941	670043	663504	518530	610101	538261	628324	602699
	LONGLINE	ESP							210925			1281762	1124126
		FRA		21409	1133	46139	167240	66761	66761	72518		9338	20773
		IRL	73800	3000	18950		31850						
		UK	458361	305559	352532	616562	693957	749007	113545	179173	73740	247636	313396
	NONE	ESP										14937	
		IRL										9217	
	PELAGIC TRAWLS	FRA	4968	5912	3355	2479				1620	1768		
		GER		133156	155266								9023
		IRL	14990										
		NED	150544	636250	299936	22652		53536		479118	225060	111619	601920
		UK	34271	41484	50625					27309			
	POTS	FRA		3648						3087		140	
		UK	3542	8376	895		37	15155	1028	953	218	182	392
	TRAMMEL	FRA			3600	5298		1430	1430	1012	2693	1790	938
		UK	36749	16184	18644	53388	21012	3966	2632	1112	5493	28698	50874
7 EU no 7d Total			12519598	11831258	10914871	7697957	7523078	5922499	4370189	4582355	3745228	7319162	7186890

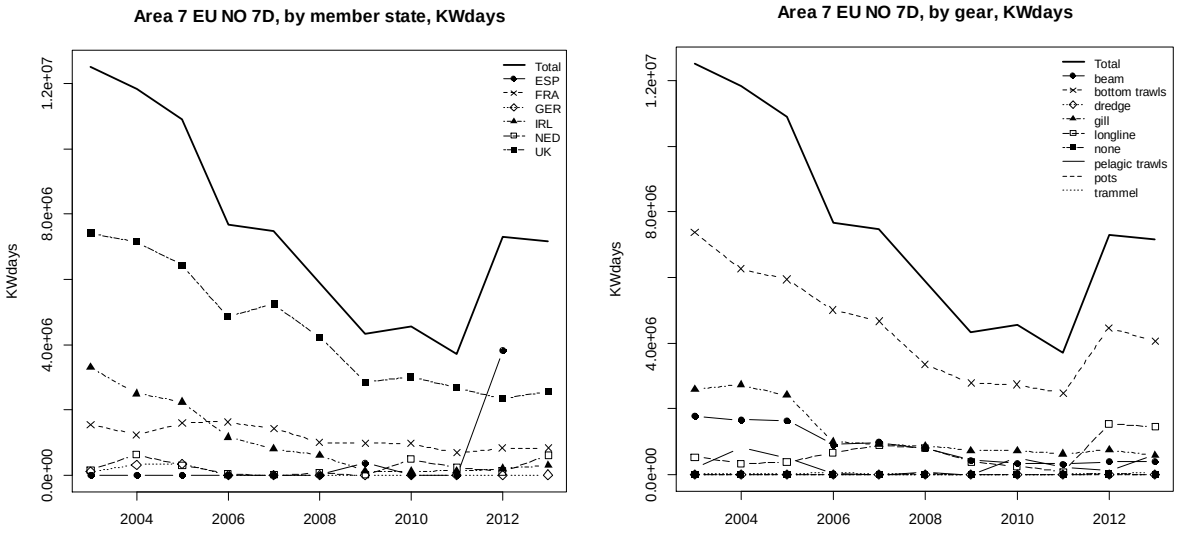


Figure 5.9.1.7.1. Deep Sea fishing effort (kW*days), 2003 – 2013, by country and by gear, in ICES Sub-area VII EU no VIId.

VII EU no VIId Western Waters

Within EU waters of Area VII, excluding VIId, a wide variety of activity occurs incorporating a number of nations. Overall effort has been relatively constant throughout the time series. A relatively small proportion of effort is directed to deepwater fisheries (Table 5.9.1.7.3 and Figure 5.9.1.7.2).

The main gear in use is the bottom trawl, with France the primary contributor followed by Ireland and the UK. Bottom trawl effort which had been decreasing between 2006 and 2008 has increased again and is back near historical high values. French effort has been stable through the time series while that of Ireland and UK has dropped. In 2012 and 2013 Spain has reported large effort.

Pelagic trawling is dominated by the Netherlands and with smaller amounts by Ireland, UK, France and Germany. Pelagic trawl effort peaked in 2010 and has stabilised at a lower level since. Effort by Netherlands has fluctuated through the time series while that of Germany and France has been stable, and that of Ireland has begun to increase since 2008.

Beam trawling, mainly carried out by England, Belgium and Ireland, has declined from a peak in 2003. This is likely due to a number of decommissioning schemes removing vessels from the fleet. Effort seems to have stabilised since 2007.

Dredging effort (by France, Scotland, England and Ireland) has remained stable through the time series. Effort for pots peaked in 2008, 2009 but has been stable since. Similar effort is also directed toward gillnets, particularly by France. Longline effort, which had been stable, increased greatly in 2012 and 2013. This new effort was reported by Spain.

Table 5.9.1.7.3. Effort (kW*days) by country, gear and vessel size group within ICES Sub-area VII EU no VIId, 2003-2013.

				2003			2004			2005			2006			2007		
Area	Gear	MS	Vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
7 EU NO 7D	beam	FRA	u10m	0		0	7998		7998	0		0	0		0	0		0
		UK	u10m	2132		2132	14104		14104	22275		22275	26947		26947	27527		27527
		FRA	o10t15m	7217		7217	27252		27252	72001		72001	99790		99790	130720		130720
		IRL	o10t15m	0		0	0		0	0		0	0		0	748		748
		UK	o10t15m	200993		200993	81373		81373	83351		83351	61779		61779	77449		77449
		BEL	o15m	4799487		4799487	6051749		6051749	5691268		5691268	4400152		4400152	4308567		4308567
		FRA	o15m	40289		40289	296461		296461	244545		244545	207818		207818	189856		189856
		IRL	o15m	4899946	0	4899946	3605637	0	3605637	3489563	17507	3472056	2560813	0	2560813	2317723	0	2317723
		NED	o15m	22000		22000	0		0	5884		5884	0		0	0		0
		UK	o15m	6346913	1780538	4566375	6148732	1655828	4492904	6010375	1630596	4379779	5296966	910940	4386026	4985698	974833	4010865
	bottom trawls	FRA	u10m	226633		226633	268265		268265	158701		158701	147872		147872	87051		87051
		NED	u10m	0		0	0		0	0		0	0		0	0		0
		UK	u10m	271194	341	270853	304819	2076	302743	334431	396	334035	629122	10254	618868	904268	9046	895222
		FRA	o10t15m	1215705	0	1215705	1442682	0	1442682	1330539	0	1330539	2045449	0	2045449	2477485	0	2477485
		IRL	o10t15m	429700		429700	397518		397518	398023		398023	466124		466124	619016		619016
		UK	o10t15m	1941755	6908	1934847	2123503	5133	2118370	2096782	5626	2091156	2058812	9768	2049044	2161866	18440	2143426
		BEL	o15m	22209		22209	132868		132868	232400		232400	458682		458682	541488		541488
		DEN	o15m	111205		111205	213006		213006	77968		77968	121909		121909	77502		77502
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	17600326	1142499	16457827	17806538	944045	16862493	18308670	1027472	17281198	17116070	1228501	15887569	16055918	1011353	15044565
		IRL	o15m	12877606	3036176	9841430	13028688	2473880	10554808	12713515	2187958	10525557	10766994	1127858	9639136	11206943	749478	10457465
		NED	o15m	255710	0	255710	64393	0	64393	108566	0	108566	162551	0	162551	113851	0	113851
		UK	o15m	10327809	3179059	7148750	8979007	2841094	6137913	8616304	2720356	5895948	7631591	2641065	4990526	7216805	2891375	4325430
	dredge	FRA	u10m	782207		782207	1020244		1020244	658413		658413	661222		661222	455336		455336
		UK	u10m	42720		42720	67588		67588	45172		45172	205678		205678	248060		248060
		FRA	o10t15m	2320953	0	2320953	2954269	0	2954269	2755241	0	2755241	3279571	0	3279571	3330398	0	3330398
		IRL	o10t15m	19763		19763	16170		16170	2686		2686	24492		24492	38799		38799
		UK	o10t15m	367705		367705	463519		463519	679525		679525	704487		704487	654601		654601
		BEL	o15m	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	631654		631654	904367		904367	644169		644169	719978		719978	852839		852839
		IRL	o15m	1067220		1067220	1117122		1117122	584823		584823	188454		188454	326638		326638
		NED	o15m	153790		153790	136772		136772	198540		198540	130515		130515	179128		179128
		UK	o15m	2462116		2462116	2353884		2353884	2695900		2695900	2506785		2506785	2535015		2535015
	gill	FRA	u10m	355002	0	355002	470349	0	470349	383942	0	383942	399424	0	399424	310109	0	310109
		NED	u10m	0		0	0		0	48		48	22		22	0		0
		UK	u10m	54181	2419	51762	82392	6357	76035	85391	6450	78941	574524	17471	557053	766760	30079	736681
		FRA	o10t15m	740936	0	740936	1015940	0	1015940	904288	0	904288	951675	0	951675	917344	0	917344
		IRL	o10t15m	98676		98676	96556		96556	79440		79440	103073		103073	113708		113708
		NED	o10t15m	0		0	0		0	0		0	161		161	0		0
		UK	o10t15m	372118	146512	225606	416338	151424	264914	329209	141351	187858	311725	103130	208595	277319	76449	200870
		BEL	o15m	0		0	0		0	0		0	0		0	0		0
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	1042726	396953	645773	1069302	261655	807647	1240907	555657	685250	996131	351137	644994	1258557	245631	1012926
		GER	o15m	371138	111935	259203	452381	185086	267295	396914	189137	207777	32794	0	32794	171880	8398	163482
		IRL	o15m	1055553	165956	889597	853461	18916	834545	626023	11875	614148	457663	30975	426688	495966	30385	465581
		UK	o15m	2182289	1773077	409212	2446660	2110786	335874	1863747	1515554	348193	856988	520340	336648	903497	563515	339982
	longline	FRA	u10m	279411		279411	334891		334891	286741		286741	358796		358796	264220		264220
		UK	u10m	16298	54	16244	38722	140	38582	43889	440	43449	130895	1506	129389	274606	2814	271792
		ESP	o10t15m	0		0	0		0	0		0	0		0	0		0
		FRA	o10t15m	111426		111426	153667		153667	198527		198527	350334		350334	313997		313997
		IRL	o10t15m	0		0	0		0	4074		4074	1265		1265	9962		9962
		UK	o10t15m	82631	638	81993	65028	1314	63714	58561	1161	57400	71515	1106	70409	81526	526	81000
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	123656	0	123656	184636	21409	163227	206807	1133	205674	360284	46139	314145	410608	167240	243368
		IRL	o15m	91311	73800	17511	4400	3000	1400	68722	18950	49772	0	0	0	46022	31850	14172
		UK	o15m	501420	457669	43751	340300	304105	36195	409992	350931	59061	713221	613950	99271	845491	690617	154874
	none	FRA	u10m	21485		21485	19490		19490	20585		20585	11710		11710	21071		21071
		UK	u10m	0		0	0		0	0		0	0		0	425		425
		FRA	o10t15m	10756		10756	33746		33746	76396		76396	41748		41748	6979		6979
		IRL	o10t15m	0		0	0		0	0		0	0		0	383		383
		UK	o10t15m	0		0	0		0	2130		2130	0		0	0		0
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	21008		21008	0		0	327		327	858		858	6401		6401
		IRL	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		UK	o15m	0		0	0		0	0		0	0		0	0		0
	pelagic trawls	FRA	u10m	1260		1260	364		364	2918		2918	540		540	1195		1195
		UK	u10m	0		0	0		0	0		0	0		0	2406		2406
		FRA	o10t15m	111398		111398	109005		109005	72864		72864	79681		79681	111755		111755
		IRL	o10t15m	6720		6720	7060		7060	2988		2988	9035		9035	6591		6591
		UK	o10t15m	10036		10036	24088		24088	14750		14750	22026		22026	55866		55866
		DEN	o15m	180216		180216	285933		285933	529574		529574	461159		461159	937210		937210
		ESP	o15m	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	1767960	4968	1762992	1645559	5912	1639647	1623092	3355	1619737	1715749	2479	1713270	1830063	0	1830063
		GER	o15m	1152793	0	1152793	1236846	133156	1103690	936424	155266	781158	856734	0	856734	962635	0	962635
		IRL	o15m	1565407	14990	1550417	1762567	0	1762567	1592041	0	1592041	1362255	0	1362255	2007140	0	2007140
		NED	o15m	4778550	150544	4628006	5183074	636250	4546824	4516777	299936	4216841	4683381	22652	4660729	4252343	0	4252343
		UK	o15m	1886847	34271	1852576	2258858	41484	2217374	1995435	50625	1944810	1488411	0	1488411	2151804	0	2151804
		LIT	o40m	0		0	0		0	0		0	0		0	0		0
	pots	FRA	u10m	1418687		1418687	2126775		2126775	1719730		1719730	1825507		1825507	1621260		1621260
		UK	u10m	359487	2997	356490	386558	0	386558	390097	895	389202	2693989	0	2693989	2929171	37	2929134
		FRA	o10t15m	1048241	0	1048241	1768450	0	1768450	1751646	0	1751646	2194275	0	2194275	1912615	0	1912615
		IRL	o10t15m	49481		49481	138065		138065	192380		192380	308644		308644	510050		510050
		UK	o10t15m	1120189	0	1120189	1116630	0	1116630	1216782	0	1216782	1059520	0	1059520	1027585	0	1027585
		FRA	o15m	206908	0	206908	310610	3648	306962	331470	0	331470	383133	0	383133	367272	0	367272
		GER	o15m	79821		79821	22932		22932	67473		67473	37763		37763	49735		49735
		IRL	o15m	107939		107939	58839		58839	107808		107808	103058		103058	57898		57898
		UK	o15m	627873	545	627328	694142	8376	685766	570137	0	570137	573507	0	573507	670894	0	670894
	trammel	FRA	u10m	263410	0	263410	233202	0	233202	202572	0	202572	216971	0	216971	255766	0	255766
		NED	u10m	0		0	0		0	0		0	0		0	0		0
		UK	u10m	0	0	0	0	0	0	160	108	52	787	0	787	3048	42	3006
		FRA	o10t15m	463009	0	463009	613504	0	613504	763828	0	763828	906651	0	906651	1057950	0	1057950
		IRL	o10t15m	802		802	0		0	0		0	6673		6673	18759		18759
		UK	o10t15m	373	0	373	243	0	243	11051	5706	5345	7679	3267	4412	13686	8509	5177
		FRA	o15m	299226	0	299226	358319	0	358319	438016	3600	434416	465337	5298	460039	471663	0	471663
		IRL	o15m	0		0	172		172	16260		16260	13550		13550	6624		6624
		UK	o15m	68404	36749	31655	54007	16184	37823	16189	12830	3359	63807	50121	13686	16867	12461	4406
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	2008			2009			2010			2011			2012			2013		
Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
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91281	0	91281	216240	0	216240	258516	3385	255131	259780	0	259780	154541	0	154541	132385	0	132385
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279707		279707	277385		277385	468049		468049	531299		531299	498655		498655	437950		437950
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2518083	0	2518083	2478802	0	2478802	1680695	110	1680585	1680609	0	1680609	1594941	0	1594941	1452733	0	1452733
63475		63475	75323		75323	92844		92844	138448		138448	114899		114899	166855		166855
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443173	4425	438748	415369	0	415369	409269	0	409269	374722	0	374722	396825	0	396825	367736	0	367736
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139114		139114	139114		139114	170925		170925	133564		133564	112422		112422	136385		136385
16474		16474	26309		26309	21794		21794	14590		14590	25149		25149	12400		12400
63299	684	62615	44113	1710	42403	52964	1394	51570	53477	736	52741	41153	840	40313	44454	526	43928
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31331	0	31331	2856	0	2856	13030	0	13030	3193	0	3193	27670	0	27670	2208	0	2208
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9972		9972	9972		9972	0		0	101161		101161	0		0	0		0
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7176		7176	12012		12012	11545		11545	35754		35754	86408		86408	58361		58361
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766968	15155	751813	776861	0	776861	729222	0	729222	712930	0	712930	651931	0	651931	697887	0	697887
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662533	0	662533	662382	0	662382	493742	466	493276	505116	2253	502863	476744	1397	475347	467931	0	467931
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22125		22125	7800		7800	35672		35672	23000		23000	49028		49028	15628		15628
20745	952	19793	3249	1197	2052	13969	1112	12857	72025	5493	66532	105327	28698	76629	127221	49723	77498
79286942	5922499	73364443	74919580	4370189	70549391	86580753	4582355	81998398	79649655	3745228	75904427	89807421	7319162	82488259	91589692	7186891	84402801

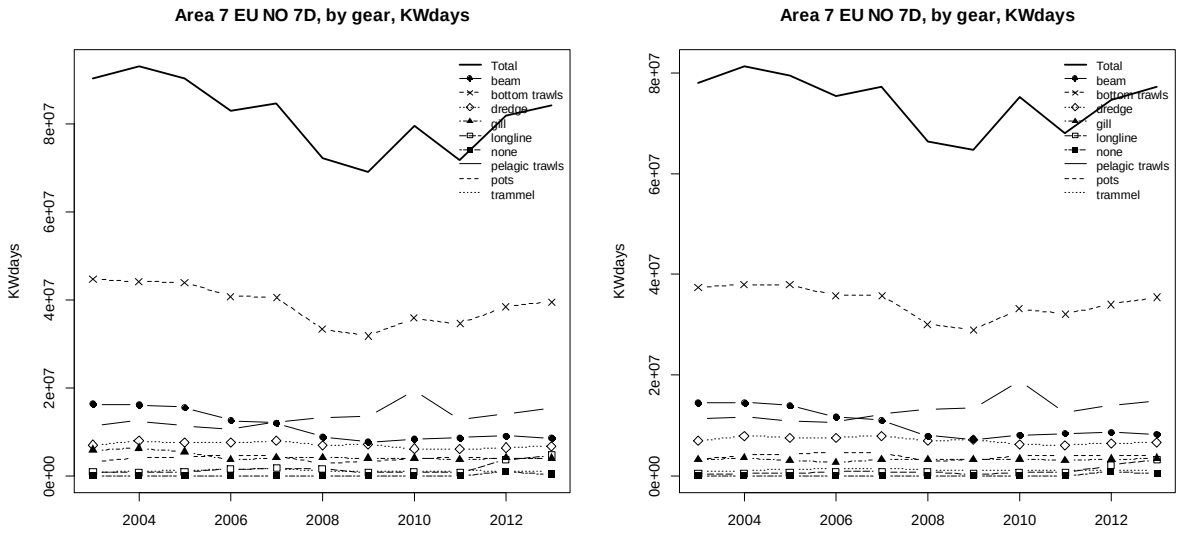

Figure 5.9.1.7.2. Effort (kW*days) reported within ICES Sub-area VII EU no VIId by gear type, 2003-2013, with (left) and without (right) reported deepwater effort.

Deepwater VII non-EU

Prior to 2011 Area VII non EU effort was confined to the UK and was made up of bottom trawling and gill netting. This effort stopped in 2004. In 2011 France reported a small amount of bottom trawl effort and in 2012 and 2013 Spain reported small amounts of bottom trawl and longline effort.

Table 5.9.1.7.4. Deep Sea fishing effort (kW*days) 2003 – 2013 by member state ICES Sub-area VII non-EU.

Area	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
7 non EU	ESP										3074	4421
	FRA									442		
	UK	906	2519									
7 non EU Total		906	2519							442	3074	4421

Table 5.9.1.7.5. Deep Sea fishing effort (kW*days) 2003 – 2013 by gear and member state ICES Sub-area VII non-EU.

Area	Gear	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
7 non EU	BOTTOM TRAWLS	ESP										1419	720
		FRA									442		
		UK	906										
	GILL	UK		2519									
	LONGLINE	ESP										1655	3701
7 non EU Total			906	2519							442	3074	4421

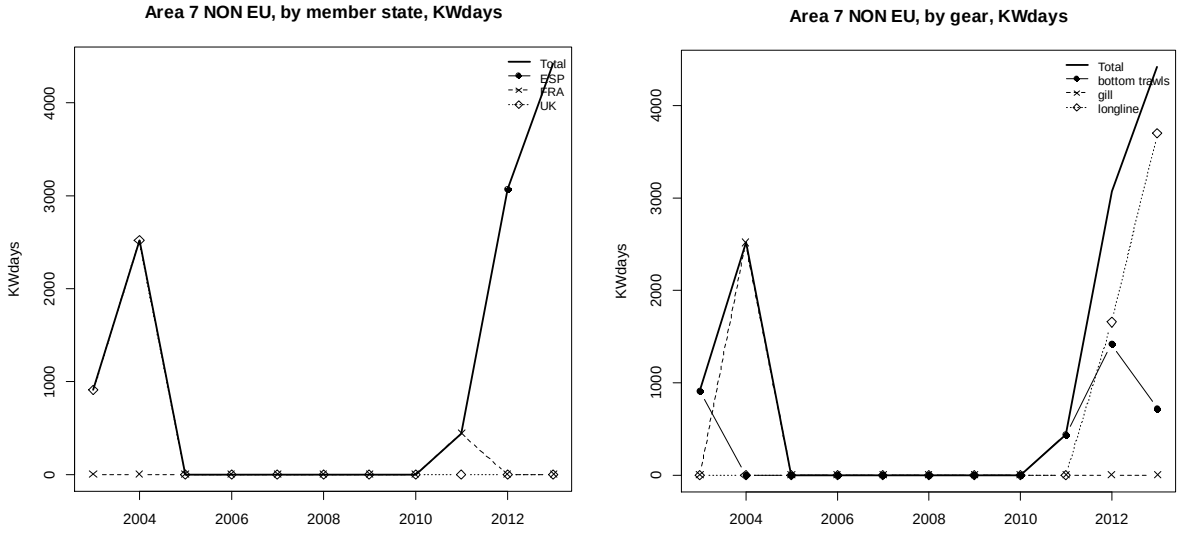

Figure 5.9.1.7.3. Deep Sea fishing effort (kW*days), 2003 – 2013, by country and by gear, in ICES Sub-area VII non-EU.

Western Waters VII non-EU

No effort was recorded in this area between 2006 and 2008, (Table 5.9.1.7.6). Prior to that there was some effort for Netherlands in pelagic trawl, and sporadic effort in bottom trawls, gill nets and longlines.

Since 2009 small amounts of bottom trawl effort have been recorded by France, Spain and UK. Longline effort was reported from 2010 to 2013 by France and UK again, but in 2012 and 2013 the major longline effort was reported by Spain. Occasional pelagic trawl effort has been reported by Germany, France, Spain and the Netherlands.

Table 5.9.1.7.6. Effort (kW*days) by country, gear and vessel size group within ICES Sub-area VII non-EU, 2003-2013

				2003			2004			2005			2006			2007		
Area	Gear	MS	Vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
7 NON EU	bottom trawls	ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		UK	o15m	906	906	0	308	0	308	0	0	0	0	0	0	0	0	0
	gill	ESP	o15m	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	0		0	0		0	0		0	0		0	0		0
		UK	o15m	0	0		2519	2519		0	0		0	0		0	0	
	longline	ESP	o10t15m	0		0	0		0	0		0	0		0	0		0
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	0		0	0		0	0		0	0		0	0		0
		PRT	o15m															
		UK	o15m	0		0	0		0	0		0	0		0	0		0
	none	ESP	o15m	0		0	0		0	0		0	0		0	0		0
	pelagic trawls	ESP	o15m	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	0		0	0		0	0		0	0		0	0		0
		GER	o15m	10598		10598	0		0	0		0	0		0	0		0
		NED	o15m	301413		301413	43510		43510	222896		222896	0		0	0		0
		UK	o15m	28928		28928	0		0	0		0	0		0	0		0
7 NON EU Total				341845	906	340939	46337	2519	43818	222896	0	222896	0	0	0	0	0	0

	2008			2009			2010			2011			2012			2013		
Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
0	0	0	0	0	0	0	0	0	0	0	0	4160	1419	2741	720	720	0
0	0	0	0	0	0	8232	0	8232	442	442	0	810	0	810	4036	0	4036
0	0	0	7875	0	7875	0	0	0	0	0	0	0	0	0	0	0	0
0		0	0		0	0		0	0		0	1102		1102	7268		7268
0		0	0		0	0		0	0		0	1104		1104	0		0
0	0		0	0		0	0		0	0		0	0		0	0	
0		0	0		0	0		0	0		0	478		478	4034		4034
0	0	0	0	0	0	0	0	0	0	0	0	136266	1655	134611	122416	3701	118715
0		0	0		0	8722		8722	4420		4420	9810		9810	3580		3580
0		0	0		0	28325		28325	14713		14713	1432		1432	22256		22256
0		0	0		0	0		0	0		0	1940		1940	0		0
0		0	0		0	0		0	0		0	4520		4520	1710		1710
0		0	0		0	57930		57930	10328		10328	71233		71233	55563		55563
0		0	0		0	36000		36000	0		0	0		0	0		0
0		0	75820		75820	0		0	26164		26164	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0
0	0	0	83695	0	83695	139209	0	139209	56067	442	55625	232855	3074	229781	221583	4421	217162

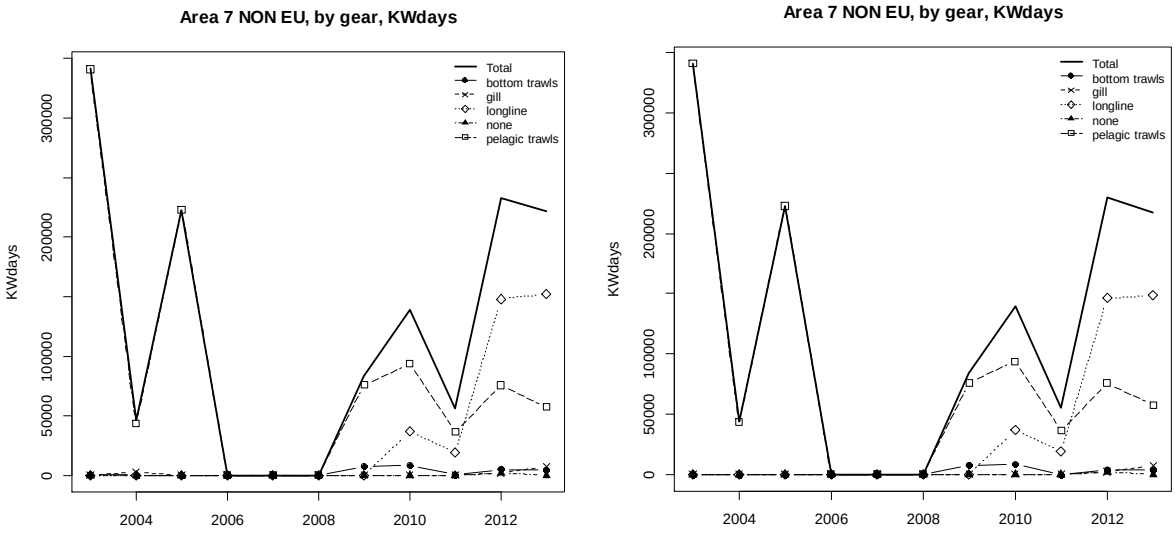

Figure 5.9.1.7.4. Effort (kW*days) reported within ICES subarea 7 non EU by gear type, 2003-2013, with (left) and without (right) reported deepwater effort.

5.9.1.8 Fishing effort in ICES area VIId

Deepwater VIId

Area VII EU VIId effort is primarily from UK and France and this effort fluctuates greatly from year to year.

2006 marked a change in UK effort from English beam to Scottish bottom trawl. Bottom trawl effort has been in decline since its peak in 2008, (Figure 5.9.1.8.1). This effort was mainly reported by UK although between 2010 and 2012 France has also reported some effort.

From 2003 to 2004, and again in 2013 the Netherlands reported some pelagic effort, and in 2010 and 2011 also reported some bottom trawl effort. France reported pelagic effort from 2003 to 2006.

Table 5.9.1.8.1. Deep Sea fishing effort (kW*days) 2003 – 2013 by member state ICES Sub-area VIId.

Area	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
7d	FRA	9090	27425	44199	5530	4517	1716	1716	12762	21014	12848	
	NED	68230	141760						2708	6000		72000
	UK	42719	14231	22041	1264	36346	127143	59913	19436	16070	1875	1774
7d Total		120039	183416	66240	6794	40863	128859	61629	34906	43084	14723	73774

Table 5.9.1.8.2. Deep Sea fishing effort (kW*days) 2003 – 2013 by gear and member state ICES Sub-area VIId.

Area	Gear	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
7d	BEAM	UK	41808	14231	22041	1264	17015	6524					221
	BOTTOM TRAWLS	FRA				1997	4517			11930	20231	12025	
		NED								2708	6000		
		UK					19289	120493	59626	19436	14506	1875	1393
	GILL	FRA										264	
		UK					42	126	287		22		160
	LONGLINE	FRA						1716	1716	221		221	
		UK	911								1542		
	PELAGIC TRAWLS	FRA	9090	27425	44199	3533					220		
		NED	68230	141760									72000
	POTS	FRA									141		
	TRAMMEL	FRA								611	422	338	
7d Total			120039	183416	66240	6794	40863	128859	61629	34906	43084	14723	73774

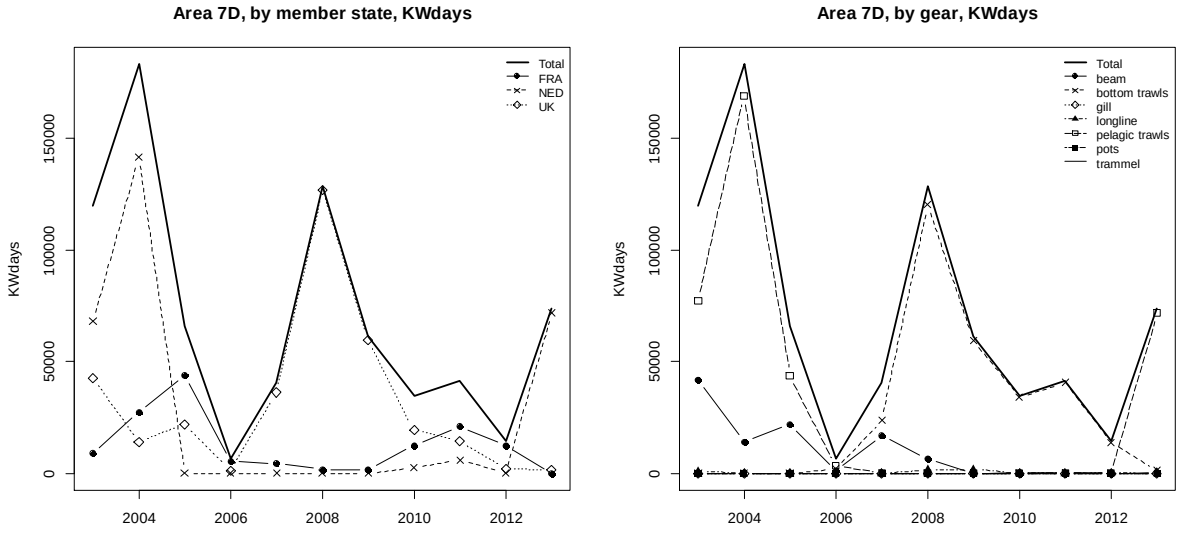

Figure 5.9.1.8.1. Deep Sea fishing effort (kW*days), 2003 – 2013, by country and by gear, in ICES Sub-area VIId.

Western Waters VIId

Effort within Area VIId had been increasing up to 2006, after which it began to decline. Over the last four years however effort has appeared to stabilise. France is the principal nation operating within this area, driving the overall trends, followed by UK, Netherlands and Belgium. There is essentially no effort associated with deepwater fisheries (Table 5.9.1.8.3 and Figure 5.9.1.8.2).

The main effort reported for this area is bottom trawling, particularly by France, with much lower levels reported by the UK. Effort levels have slowly decreased from a peak in 2007. Dredging, mainly by France and the UK and pelagic trawls, Netherlands and France, provide the next highest levels of effort. Both of these methods have stayed relatively stable throughout the time period. Beam trawling is mainly by Belgium, with small effort from France and UK, and the majority of trammel net effort is by France. Both methods were in decline since peaks in the mid 2000s but both have stabilised in the last four years.

Table 5.9.1.8.3. Effort (kW*days) by country, gear and vessel size group within ICES Sub-area VIId, 2000-2013.

				2003			2004			2005			2006			2007		
Area	Gear	MS	Vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
7D	beam	FRA	u10m	49995		49995	49012		49012	41929		41929	27894		27894	28695		28695
		UK	u10m	1922		1922	1514		1514	18031		18031	8106		8106	32633		32633
		FRA	o10t15m	474891		474891	447989		447989	319077		319077	562145		562145	588358		588358
		UK	o10t15m	178756		178756	141022		141022	137624		137624	156183		156183	147478		147478
		BEL	o15m	2583050		2583050	2422541		2422541	2070380		2070380	2782454		2782454	3184292		3184292
		FRA	o15m	673373		673373	950816		950816	668392		668392	747367		747367	574879		574879
		NED	o15m	0		0	5147		5147	0		0	4796		4796	0		0
		UK	o15m	660076	41808	618268	545150	14231	530919	296452	22041	274411	203081	1264	201817	190480	17015	173465
	bottom trawls	FRA	u10m	323591		323591	357439		357439	282591		282591	360337		360337	267252		267252
		UK	u10m	106361		106361	58541		58541	56678		56678	79675		79675	263798		263798
		BEL	o10t15m	0		0	0		0	0		0	0		0	0		0
		FRA	o10t15m	1862829	0	1862829	1984591	0	1984591	2014199	0	2014199	2963942	525	2963417	3174239	0	3174239
		UK	o10t15m	276459		276459	271809		271809	251054		251054	173281		173281	151491		151491
		BEL	o15m	2084		2084	27043		27043	10924		10924	23328		23328	13756		13756
		DEN	o15m	0		0	0		0	0		0	0		0	10016		10016
		FRA	o15m	10842697	0	10842697	11705268	0	11705268	10835136	0	10835136	11145296	1472	11143824	10474572	4517	10470055
		IRL	o15m	5344		5344	0		0	0		0	0		0	0		0
		NED	o15m	193684	0	193684	323486	0	323486	344814	0	344814	287224	0	287224	434839	0	434839
		UK	o15m	47004	0	47004	38842	0	38842	64801	0	64801	156541	0	156541	225840	19289	206551
	dredge	FRA	u10m	61699		61699	100033		100033	106283		106283	99793		99793	42421		42421
		UK	u10m	35900		35900	34212		34212	97992		97992	160903		160903	162621		162621
		FRA	o10t15m	1408038		1408038	1978038		1978038	2658944		2658944	3199963		3199963	2627561		2627561
		UK	o10t15m	190898		190898	117699		117699	130483		130483	105802		105802	143027		143027
		BEL	o15m	0		0	0		0	0		0	0		0	3723		3723
		FRA	o15m	3272292		3272292	4190146		4190146	5370590		5370590	5919406		5919406	5018197		5018197
		IRL	o15m	139925		139925	208062		208062	51300		51300	0		0	0		0
		NED	o15m	121848		121848	88314		88314	59562		59562	119581		119581	97064		97064
		UK	o15m	333224		333224	324756		324756	257658		257658	500927		500927	655748		655748
	gill	FRA	u10m	163651	0	163651	139315	0	139315	176429	0	176429	145288	0	145288	146653	0	146653
		UK	u10m	61539	0	61539	96754	0	96754	66152	0	66152	436125	0	436125	1087177	42	1087135
		BEL	o10t15m	1375		1375	471		471	0		0	0		0	0		0
		FRA	o10t15m	428866		428866	230389		230389	205371		205371	237516		237516	350342		350342
		UK	o10t15m	4498	0	4498	3373	0	3373	219	0	219	2529	0	2529	1699	0	1699
		BEL	o15m	15232		15232	18120		18120	19026		19026	23556		23556	906		906
		FRA	o15m	135124		135124	111106		111106	37647		37647	63609		63609	36151		36151
		NED	o15m	0		0	0		0	0		0	442		442	0		0
		UK	o15m	0		0	0		0	0		0	0		0	0		0
	longline	FRA	u10m	38903		38903	48281		48281	54476		54476	59433		59433	58196		58196
		UK	u10m	21489	0	21489	10467	0	10467	14999	0	14999	27624	0	27624	91776	0	91776
		FRA	o10t15m	88085	0	88085	103303	0	103303	91082	0	91082	100220	0	100220	122800	0	122800
		UK	o10t15m	43692		43692	31882		31882	39988		39988	40165		40165	37362		37362
		ESP	o15m	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	56719		56719	60067		60067	6229		6229	14522		14522	39773		39773
		UK	o15m	911	911	0	0	0	0	0	0	0	0	0	0	561	0	561
	none	FRA	u10m	40696		40696	26077		26077	28060		28060	7750		7750	24289		24289
		FRA	o10t15m	102507		102507	85409		85409	2468		2468	4036		4036	15289		15289
		FRA	o15m	53068		53068	87408		87408	0		0	28908		28908	4314		4314
	pelagic trawls	FRA	u10m	6204	0	6204	2592	0	2592	4593	409	4184	4694	0	4694	8355	0	8355
		UK	u10m	0		0	0		0	0		0	0		0	0		0
		FRA	o10t15m	334671	0	334671	265198	0	265198	411922	0	411922	368239	0	368239	504108	0	504108
		UK	o10t15m	1639		1639	0		0	1218		1218	870		870	0		0
		DEN	o15m	17615		17615	0		0	4050		4050	0		0	0		0
		FRA	o15m	1491834	9090	1482744	1874695	27425	1847270	1981575	43790	1937785	2134645	3533	2131112	1773861	0	1773861
		GER	o15m	192238		192238	256061		256061	252645		252645	222395		222395	225990		225990
		IRL	o15m	0		0	0		0	0		0	20000		20000	0		0
		NED	o15m	2460589	68230	2392359	1965236	141760	1823476	1838845	0	1838845	1277534	0	1277534	1613832	0	1613832
		UK	o15m	405297		405297	494592		494592	449401		449401	288491		288491	481527		481527
		LIT	o40m	0		0	0		0	0		0	0		0	0		0
	pots	FRA	u10m	282023		282023	305607		305607	375984		375984	425216		425216	446367		446367
		UK	u10m	173346		173346	155291		155291	168364		168364	796589		796589	814156		814156
		FRA	o10t15m	67772	0	67772	79729	0	79729	132541	0	132541	314291	0	314291	226545	0	226545
		UK	o10t15m	455318		455318	405275		405275	444340		444340	384311		384311	442350		442350
		FRA	o15m	13342		13342	36717		36717	77214		77214	75462		75462	90988		90988
		UK	o15m	57062		57062	65360		65360	101017		101017	107967		107967	124160		124160
	trammel	FRA	u10m	491754	0	491754	459688	0	459688	469766	0	469766	571531	0	571531	464272	0	464272
		UK	u10m	900		900	0		0	0		0	58488		58488	858		858
		FRA	o10t15m	1938504	0	1938504	2116989	0	2116989	2505884	0	2505884	2979380	0	2979380	2945844	0	2945844
		IRL	o10t15m	0		0	0		0	0		0	0		0	0		0
		UK	o10t15m	11295		11295	8742		8742	9183		9183	6081		6081	7708		7708
		BEL	o15m	0		0	0		0	0		0	0		0	26676		26676
		FRA	o15m	615347	0	615347	515961	0	515961	802345	0	802345	702341	0	702341	642980	0	642980
7D Total				34119045	120039	33999006	36431625	183416	36248209	36917927	66240	36851687	41718273	6794	41711479	41370845	40863	41329982

2008			2009			2010			2011			2012			2013		
Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
52596		52596	52596		52596	24817		24817	25987		25987	25351		25351	37642		37642
13151		13151	2927		2927	13179		13179	482		482	8381		8381	13983		13983
497791		497791	497791		497791	395548		395548	398689		398689	483846		483846	316221		316221
189297		189297	200709		200709	187831		187831	161558		161558	192816		192816	165984		165984
2696039		2696039	2226560		2226560	1924990		1924990	1881904		1881904	1554192		1554192	1673183		1673183
656013		656013	656013		656013	184402		184402	147537		147537	200968		200968	214366		214366
0		0	1471		1471	0		0	663		663	0		0	0		0
182640	6524	176116	209843	0	209843	84354	0	84354	39435	0	39435	48785	0	48785	34881	221	34660
137930		137930	137455		137455	231350		231350	272571		272571	229011		229011	237469		237469
270193		270193	243568		243568	239132		239132	284580		284580	298612		298612	272127		272127
0		0	0		0	0		0	2210		2210	0		0	0		0
2260060	0	2260060	2256872	0	2256872	1757627	0	1757627	2041029	2860	2038169	1971312	0	1971312	1835750	0	1835750
144447		144447	143126		143126	148423		148423	136908		136908	153644		153644	165373		165373
15816		15816	46344		46344	142527		142527	188933		188933	217336		217336	235638		235638
0		0	0		0	0		0	0		0	0		0	0		0
8140065	0	8140065	7908201	0	7908201	5597093	11930	5585163	5119404	17371	5102033	4883251	12025	4871226	4330471	0	4330471
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625656	0	625656	608242	0	608242	728019	2708	725311	611819	6000	605819	706896	0	706896	876099	0	876099
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49131		49131	49131		49131	63729		63729	85691		85691	79743		79743	53778		53778
209307		209307	171086		171086	161380		161380	182573		182573	154871		154871	114138		114138
2463234		2463234	2455520		2455520	1801763		1801763	2233550		2233550	1957404		1957404	1725574		1725574
137115		137115	87868		87868	163098		163098	91936		91936	77979		77979	106377		106377
18490		18490	85486		85486	75562		75562	49669		49669	29197		29197	51472		51472
4307266		4307266	4284322		4284322	2561916		2561916	3143882		3143882	2872092		2872092	2333325		2333325
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146896		146896	130823		130823	93755		93755	0		0	0		0	0		0
520033		520033	837246		837246	1803229		1803229	1713310		1713310	989919		989919	764254		764254
73276	0	73276	73276	0	73276	116473	0	116473	109763	0	109763	108826	264	108562	113462	0	113462
1099807	126	1099681	1149395	287	1149108	956798	0	956798	824813	22	824791	587264	0	587264	590619	0	590619
4710		4710	0		0	3685		3685	0		0	0		0	0		0
132543		132543	132543		132543	63930		63930	35458		35458	79630		79630	64291		64291
4957	0	4957	12756	0	12756	25620	0	25620	25787	0	25787	7399	0	7399	3563	160	3403
5850		5850	19527		19527	7200		7200	0		0	0		0	0		0
18452		18452	18452		18452	34731		34731	9727		9727	30032		30032	34549		34549
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0		0	0		0	0		0	0		0	3249		3249	0		0
12515		12515	11757		11757	162149		162149	242235		242235	271672		271672	254178		254178
55649	0	55649	72707	0	72707	76925	0	76925	74193	1542	72651	105057	0	105057	88055	0	88055
103313	1716	101597	103313	1716	101597	105941	221	105720	84953	0	84953	65520	221	65299	87577	0	87577
39699		39699	40081		40081	46296		46296	38205		38205	35662		35662	39833		39833
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13367		13367	13367		13367	12273		12273	1559		1559	4400		4400	10223		10223
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13867		13867	13867		13867	0		0	5794		5794	0		0	0		0
84558		84558	84558		84558	0		0	4141		4141	0		0	0		0
157051		157051	157051		157051	0		0	0		0	0		0	0		0
17874	0	17874	17874	0	17874	15586	0	15586	5246	0	5246	3415	0	3415	6294	0	6294
0		0	0		0	663		663	2542		2542	221		221	0		0
317645	0	317645	317367	0	317367	180417	0	180417	197731	220	197511	258496	0	258496	214957	0	214957
0		0	0		0	0		0	0		0	0		0	0		0
0		0	0		0	0		0	16195		16195	99055		99055	71056		71056
1323773	0	1323773	1323773	0	1323773	898279	0	898279	593833	0	593833	916969	0	916969	910377	0	910377
168359		168359	166693		166693	298994		298994	360449		360449	427985		427985	351839		351839
33000		33000	100940		100940	0		0	0		0	0		0	0		0
1588572	0	1588572	1714632	0	1714632	1451892	0	1451892	682597	0	682597	1265767	0	1265767	1857497	72000	1785497
263669		263669	306734		306734	218563		218563	117360		117360	209464		209464	445668		445668
0		0	19680		19680	0		0	0		0	0		0	0		0
214863		214863	213225		213225	934239		934239	486344		486344	474027		474027	563529		563529
720522		720522	578991		578991	722844		722844	726931		726931	908197		908197	831172		831172
91168	0	91168	91168	0	91168	704266	0	704266	348716	141	348575	385515	0	385515	346339	0	346339
377034		377034	344887		344887	382655		382655	384280		384280	404151		404151	330147		330147
53385		53385	53385		53385	12940		12940	10352		10352	17608		17608	9277		9277
104667		104667	81433		81433	66317		66317	68775		68775	65096		65096	80297		80297
291831	0	291831	291831	0	291831	347721	280	347441	423167	0	423167	389907	176	389731	406752	0	406752
61990		61990	92388		92388	155481		155481	354635		354635	471459		471459	370141		370141
2052319	0	2052319	2048565	0	2048565	1576941	331	1576610	1615044	0	1615044	1591412	162	1591250	1653447	0	1653447
0		0	0		0	0		0	0		0	220		220	0		0
9580		9580	5968		5968	8324		8324	8075		8075	8332		8332	7694		7694
16200		16200	7416		7416	21600		21600	30600		30600	34086		34086	34684		34684
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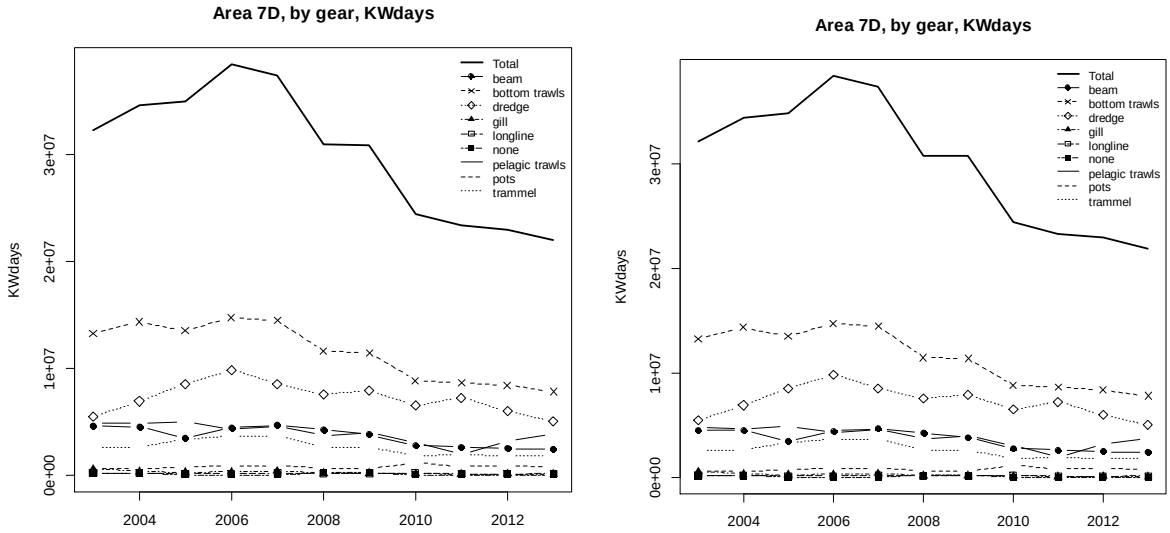

Figure 5.9.1.8.2. Effort (kW*days) reported within ICES Sub-area VIId by gear type, 2003-2013, with (left) and without (right) reported deepwater effort.

5.9.1.9 Fishing effort in the Biologically Sensitive Area

From a peak in 2003 there was a gradual decline until 2006 after which effort fluctuated. (Table 5.9.1.9.1 and Figure 5.9.1.9.1). Overall, bottom trawl effort predominates within the area, in common with the picture for the wider EU waters of Area VII. Ireland provides the majority of this effort, followed by France and the UK. Prior to 2009 Ireland and France contributed similar amounts but since 2010 Irish effort has increased while France has decreased, although French effort increased in 2013. In 2012 and 2013 Spain reported similar levels of bottom trawl effort as UK for this area.

Pelagic trawls effort had increased in recent years, in particular by Irish and German vessels, while effort from the Netherlands has stayed constant. Since 2012 Ireland has provided the highest effort.

Gillnetting, by France, Ireland and UK, shows a decline in effort in recent years. This is primarily down to a reduction of French effort. Beam trawling, carried out almost exclusively by Ireland, showed a pronounced decline until 2008 after which effort stabilised. There was a drop in Irish effort in 2011 but this increased again since 2012.

The use of pots and dredges in the area is low and both gears are used almost exclusively by Ireland.

Table 5.9.1.9.1. Effort (kW*days) by country, gear and vessel size group within the BSA Area, 2003-2013.

				2003			2004			2005			2006			2007		
Area	Gear	MS	Vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
BSA	beam	FRA	u10m	0		0	0		0	0		0	0		0	0		0
		FRA	o10t15m	147		147	1028		1028	0		0	0		0	440		440
		FRA	o15m	736		736	0		0	0		0	657		657	831		831
		IRL	o15m	3057578		3057578	2024402		2024402	2366210		2366210	1426734		1426734	1145248		1145248
		UK	o15m	128358		128358	126299		126299	124991		124991	126605		126605	11012		11012
	bottom trawls	FRA	u10m	0		0	0		0	0		0	0		0	0		0
		UK	u10m	0		0	0		0	0		0	668		668	0		0
		FRA	o10t15m	9717		9717	2469		2469	5779		5779	837		837	2594		2594
		IRL	o10t15m	363720		363720	361385		361385	318867		318867	341772		341772	450099		450099
		UK	o10t15m	187		187	0		0	0		0	0		0	326		326
		ESP	o15m	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	7359217		7359217	6558503		6558503	5986029		5986029	5796059		5796059	5720768		5720768
		IRL	o15m	6357592		6357592	6239288		6239288	5318872		5318872	4456909		4456909	4860493		4860493
		NED	o15m	19680		19680	0		0	0		0	0		0	762		762
		UK	o15m	1287686		1287686	1343335		1343335	1078579		1078579	1445737		1445737	1394194		1394194
	dredge	FRA	u10m	1411		1411	0		0	0		0	0		0	0		0
		UK	u10m	0		0	0		0	0		0	0		0	0		0
		FRA	o10t15m	3796		3796	2099		2099	7030		7030	965		965	12082		12082
		IRL	o10t15m	19763		19763	16170		16170	2686		2686	5237		5237	6625		6625
		UK	o10t15m	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	981		981	5618		5618	6993		6993	0		0	5399		5399
		IRL	o15m	130279		130279	87392		87392	97290		97290	38072		38072	45932		45932
		UK	o15m	4157		4157	0		0	0		0	543		543	0		0
	gill	FRA	u10m	0		0	0		0	0		0	0		0	0		0
		UK	u10m	0		0	0		0	0		0	0		0	238		238
		FRA	o10t15m	0		0	1206		1206	0		0	0		0	0		0
		IRL	o10t15m	59748		59748	66732		66732	58528		58528	80160		80160	87793		87793
		UK	o10t15m	26954		26954	26637		26637	16009		16009	21005		21005	6134		6134
		ESP	o15m	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	954326		954326	947097		947097	1144216		1144216	963379		963379	1027582		1027582
		GER	o15m	32698		32698	38186		38186	18512		18512	0		0	4862		4862
		IRL	o15m	736368		736368	634358		634358	463542		463542	290983		290983	379623		379623
		UK	o15m	335307		335307	413916		413916	228171		228171	215730		215730	226793		226793
	longline	FRA	u10m	0		0	0		0	0		0	0		0	0		0
		ESP	o10t15m	0		0	0		0	0		0	0		0	0		0
		FRA	o10t15m	4356		4356	0		0	0		0	0		0	0		0
		IRL	o10t15m	0		0	0		0	436		436	251		251	5757		5757
		UK	o10t15m	0		0	0		0	0		0	111		111	0		0
		ESP	o15m	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	15741		15741	12698		12698	20472		20472	84008		84008	11587		11587
		IRL	o15m	14346		14346	0		0	21511		21511	0		0	2330		2330
		UK	o15m	49572		49572	32225		32225	32502		32502	71888		71888	102210		102210
	none	IRL	o10t15m	0		0	0		0	0		0	0		0	233		233
		ESP	o15m	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	0		0	0		0	0		0	0		0	2652		2652
		IRL	o15m	0		0	0		0	0		0	0		0	0		0
	pelagic trawls	FRA	u10m	0		0	0		0	0		0	0		0	0		0
		FRA	o10t15m	0		0	0		0	444		444	0		0	0		0
		IRL	o10t15m	1960		1960	2650		2650	0		0	0		0	827		827
		ESP	o15m	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	309251		309251	208006		208006	326643		326643	212989		212989	249834		249834
		GER	o15m	417205		417205	461106		461106	203082		203082	59606		59606	95556		95556
		IRL	o15m	613744		613744	853756		853756	725256		725256	640447		640447	1206605		1206605
		NED	o15m	1151065		1151065	1633095		1633095	967750		967750	1211930		1211930	1516373		1516373
		UK	o15m	351129		351129	745630		745630	469219		469219	265739		265739	353572		353572
	pots	FRA	u10m	0		0	0		0	0		0	0		0	0		0
		UK	u10m	0		0	0		0	0		0	0		0	0		0
		FRA	o10t15m	0		0	220		220	0		0	0		0	1694		1694
		IRL	o10t15m	40748		40748	93647		93647	124598		124598	67897		67897	181751		181751
		UK	o10t15m	0		0	44		44	0		0	0		0	0		0
		FRA	o15m	5847		5847	21105		21105	3892		3892	5739		5739	410		410
		GER	o15m	0		0	441		441	0		0	6464		6464	1727		1727
		IRL	o15m	2871		2871	1581		1581	671		671	7945		7945	8842		8842
		UK	o15m	0		0	0		0	0		0	168		168	0		0
	trammel	FRA	u10m	180		180	0		0	0		0	0		0	0		0
		UK	u10m	0		0	0		0	0		0	0		0	0		0
		FRA	o10t15m	0		0	0		0	4374		4374	35684		35684	23449		23449
		IRL	o10t15m	160		160	0		0	0		0	6074		6074	18369		18369
		UK	o10t15m	0		0	0		0	2050		2050	1979		1979	1273		1273
		FRA	o15m	8040		8040	7864		7864	4994		4994	29880		29880	18218		18218
		IRL	o15m	0		0	0		0	0		0	0		0	6624		6624
		UK	o15m	12336		12336	9829		9829	6178		6178	11869		11869	4781		4781
BSA Total				23888957		23888957	22980017		22980017	20156376		20156376	17932720		17932720	19204504		19204504

2008			2009			2010			2011			2012			2013		
Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
0		0	0		0	0		0	0		0	206		206	0		0
0		0	0		0	2017		2017	3755		3755	176		176	504		504
0		0	0		0	1598		1598	0		0	0		0	0		0
695074		695074	653053		653053	662489		662489	356556		356556	542399		542399	632707		632707
3848		3848	23408		23408	60723		60723	105041		105041	63437		63437	65727		65727
0		0	0		0	667		667	4276		4276	7492		7492	5248		5248
8283		8283	3151		3151	1038		1038	0		0	0		0	0		0
6991		6991	5961		5961	9246		9246	17885		17885	5654		5654	8649		8649
452538		452538	524788		524788	596883		596883	520615		520615	611242		611242	550736		550736
468		468	0		0	0		0	0		0	0		0	0		0
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4607029		4607029	4567101		4567101	2984866		2984866	2413727		2413727	2561634		2561634	3600820		3600820
4560695		4560695	4675826		4675826	4775122		4775122	4192362		4192362	4392921		4392921	4961603		4961603
0		0	1530		1530	708		708	0		0	4221		4221	500		500
1578080		1578080	1471186		1471186	1844838		1844838	1705841		1705841	1839845		1839845	1639206		1639206
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7596		7596	7596		7596	17964		17964	17333		17333	12033		12033	0		0
16726		16726	15758		15758	22500		22500	31239		31239	18939		18939	20119		20119
0		0	0		0	0		0	0		0	144		144	0		0
5781		5781	5781		5781	16595		16595	30191		30191	10211		10211	0		0
58134		58134	109653		109653	78890		78890	71995		71995	123961		123961	101238		101238
5379		5379	0		0	972		972	0		0	0		0	894		894
0		0	0		0	3068		3068	0		0	0		0	1748		1748
24		24	0		0	0		0	0		0	0		0	0		0
6391		6391	6391		6391	0		0	500		500	654		654	0		0
115964		115964	142545		142545	121066		121066	86583		86583	99457		99457	107703		107703
7015		7015	11998		11998	20617		20617	15542		15542	15678		15678	20229		20229
0		0	0		0	0		0	0		0	1161		1161	1470		1470
707073		707073	707073		707073	404952		404952	515920		515920	534552		534552	455153		455153
0		0	0		0	0		0	0		0	0		0	0		0
382348		382348	370007		370007	351139		351139	331027		331027	362297		362297	339634		339634
162279		162279	193309		193309	168904		168904	145293		145293	153746		153746	202512		202512
0		0	0		0	500		500	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	92		92
0		0	0		0	1345		1345	103		103	173		173	990		990
11421		11421	18772		18772	11702		11702	8148		8148	7943		7943	4582		4582
0		0	368		368	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	278659		278659	349620		349620
104854		104854	104854		104854	19111		19111	75389		75389	176197		176197	453419		453419
699		699	2856		2856	7030		7030	1645		1645	4573		4573	0		0
94507		94507	11281		11281	5909		5909	0		0	73270		73270	94476		94476
275		275	0		0	52		52	0		0	0		0	896		896
0		0	0		0	0		0	0		0	1291		1291	0		0
0		0	0		0	0		0	1912		1912	0		0	0		0
0		0	0		0	0		0	0		0	462591		462591	178197		178197
0		0	0		0	596		596	0		0	0		0	0		0
1064		1064	1064		1064	5465		5465	3130		3130	1285		1285	4233		4233
3788		3788	10466		10466	5704		5704	10503		10503	39899		39899	28424		28424
0		0	0		0	0		0	0		0	0		0	162		162
156242		156242	156242		156242	321813		321813	162453		162453	207397		207397	84081		84081
221226		221226	607073		607073	336430		336430	617935		617935	577869		577869	480923		480923
1158363		1158363	1668613		1668613	2058997		2058997	594843		594843	1836806		1836806	1739561		1739561
1560452		1560452	1778313		1778313	1506957		1506957	1598172		1598172	1380269		1380269	1377586		1377586
474383		474383	859531		859531	1292740		1292740	442094		442094	203808		203808	255244		255244
0		0	0		0	2003		2003	1993		1993	1779		1779	4819		4819
0		0	7832		7832	0		0	0		0	0		0	0		0
148		148	148		148	2031		2031	4793		4793	1245		1245	2132		2132
170391		170391	177863		177863	217068		217068	193864		193864	189063		189063	173276		173276
0		0	0		0	0		0	0		0	189		189	0		0
441		441	441		441	2210		2210	400		400	800		800	0		0
0		0	0		0	0		0	0		0	0		0	0		0
7893		7893	6637		6637	5131		5131	0		0	0		0	1231		1231
0		0	0		0	0		0	0		0	0		0	0		0
0		0	0		0	6398		6398	3239		3239	1720		1720	92		92
0		0	0		0	138		138	268		268	0		0	0		0
19152		19152	19152		19152	16751		16751	19183		19183	3805		3805	4331		4331
21941		21941	28328		28328	30554		30554	27097		27097	23899		23899	19681		19681
410		410	1531		1531	1025		1025	4100		4100	2067		2067	4193		4193
20679		20679	20679		20679	8525		8525	11844		11844	4599		4599	15504		15504
22125		22125	7800		7800	35120		35120	23000		23000	49028		49028	15628		15628
1886		1886	2052		2052	4198		4198	11413		11413	25404		25404	36553		36553
17440366		17440366	18988011		18988011	18053512		18053512	14383202		14383202	18522288		18522288	19652094		19652094

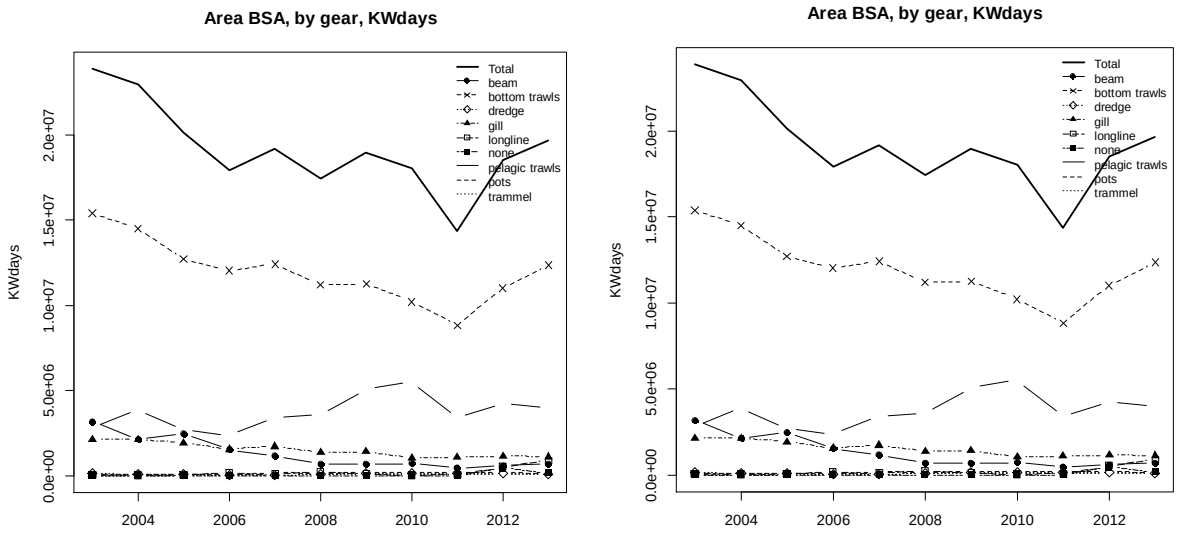


Figure 5.9.1.9.1. Effort (kW*days) reported within the BSA by gear type, 2003-2013, with (left) and without (right) reported deepwater effort.

5.9.1.10 Fishing effort in ICES area VIII

Deepwater VIII EU

Most of the effort in this area was contributed by four countries, UK, France, Spain and Netherlands, as shown in Tables 5.9.1.10.1 and 5.9.1.10.2. Small amounts of effort were reported from Ireland, Portugal and Germany on occasion.

Netherlands effort, entirely for pelagic trawl, declined to zero in 2007, but some was recorded again in 2010. Netherlands effort comprised the majority of the pelagic trawling effort.

UK and French effort increased to the mid 2000s but has since declined. Spanish effort was stable at low levels between 2002 and 2008, before recording a major increase in 2009. After this peak Spain reported no data in this area until 2012, however the 2012 and 2013 effort is roughly three times the previous highest effort. Portugal reported bottom trawl effort in 2012 and this greatly increased in 2013.

Figure 5.9.1.10.1 shows trends in effort by country and by main gears illustrating that bottom trawls were the most important followed by pelagic trawls, gill nets and longlines. In general the pattern of peak effort in the mid 2000s followed by decline is evident in all gears. There was a small peak of effort in both bottom trawl and longlines in 2009 but this had decreased again in 2010 and 2011. The effort reported for 2012 and 2013 are by far the highest in the time series.

Bottom trawl was the predominant gear used in this region, with, historically, 92% of the effort reported by France. This was reversed in 2012 with Spain reporting 90% of the effort. Gill net effort was initially confined to France but since 2004 the UK has been contributing 50%. In 2012 Spain again reported the majority of the effort.

In the mid 2000s the majority of the longline effort came from the UK with France reporting increased effort for the last six years. Spain however reported large effort for 2009, and increased that effort in 2012 and 2013. The majority of trammel net effort is reported by France.

Table 5.9.1.10.1. Deep Sea fishing effort (kW*days) 2003 – 2013 by member state ICES Sub-area VIII EU.

Area	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
8 EU	ESP	191014	119988	142950	142037	199227	158387	971345			2796825	2195757
	FRA	289751	289300	573858	563460	330069	330114	326333	297108	222426	152795	238394
	GER		22626									
	NED	49974	22284	26400	35596				67980			
	PRT	9663	10329				1089				8080	104280
	UK	87112	195594	131379	351815	108637	102356	29684	84663	106929	6887	22407
8 EU Total		627514	660121	874587	1092908	637933	591946	1327362	449751	329355	2964587	2560838

Table 5.9.1.10.2. Deep Sea fishing effort (kW*days) 2003 – 2013 by gear and member state ICES Sub-area VIII EU.

Area	Gear	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
8 EU	BEAM	UK						880					
	BOTTOM TRAWLS	ESP	147836	78301	59641	75924	133403	84600	285745			1404693	1256437
		FRA	177729	229630	473093	424001	194049	280599	276818	173856	147863	114434	142544
		PRT						1089				8080	104280
		UK								6943	9166	287	5697
	DREDGE	FRA									73		
	GILL	ESP	10091	8707	20233	17137	2638	3814	129719			196134	138263
		FRA	95204	53378	78282	117246	121418	20269	20269	28215	21244	14077	8522
		UK		89612	67015	278374	57053	58969	29684	51073	18881	6600	16145
	LONGLINE	ESP	24830	31131	60298	48533	61414	63745	538568			1073844	794652
		FRA		2024	2297	2674	407	19486	19486	76154	41262	14347	82246
		PRT	9663	10329									
		UK	87112	105982	64364	73441	51584	41960		12761	78882		565
	NONE	ESP	8196	1849	2778	358	1544	3889	11863			90933	
	PELAGIC TRAWLS	ESP						2273	5406			5341	680
		FRA	8225		7442	10239	6521			13619	882	3730	
		GER		22626									
		NED	49974	22284	26400	35596				67980			
		UK								13886			
	POTS	ESP										24107	3499
		FRA			1596					2464			
	TRAMMEL	ESP	61			85	228	66	44			1773	2226
		FRA	8593	4268	11148	9300	7674	9760	9760	2800	11102	6207	5082
		UK						547					
8 EU Total			627514	660121	874587	1092908	637933	591946	1327362	449751	329355	2964587	2560838

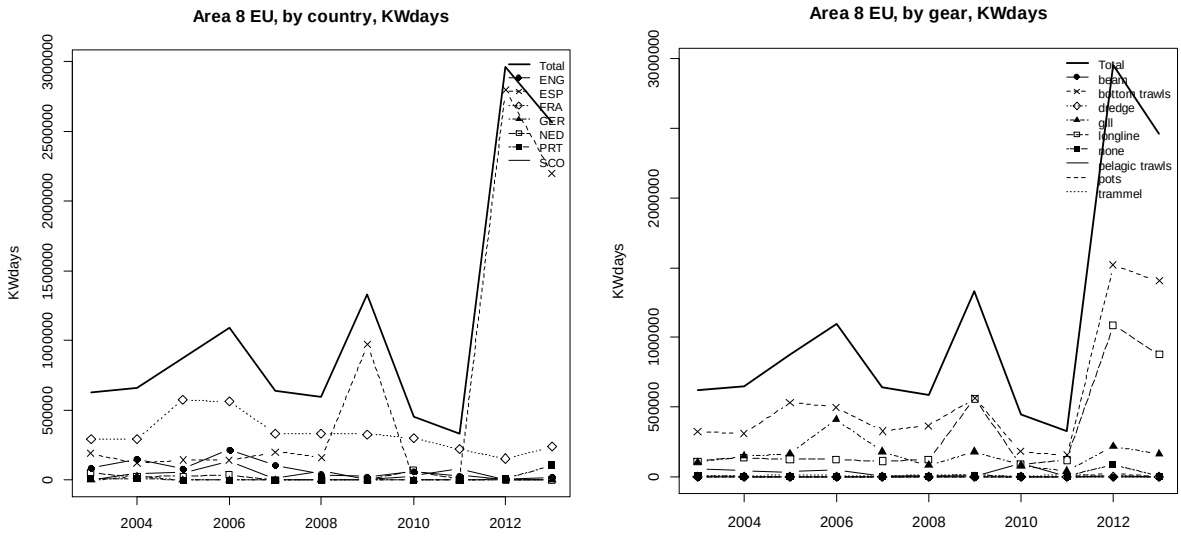


Figure 5.9.1.10.1. Deep Sea fishing effort (kW*days), 2003 – 2013, by country and by gear, in ICES Sub-area VIII EU.

Western Waters VIII EU

Two nations primarily fish this area, France and Spain. The overall trend has fluctuated within this area with greatest effort around 2006/2007 following increased French effort. With the lack of Spanish data in 2010 and 2011 it is impossible to provide proper analysis of recent effort trends. Spanish effort has been reported again for 2012 and 2013 however which has led to the increase in recorded effort. Little effort is associated with deepwater fisheries (Table 5.9.1.10.3 and Figure 5.9.1.10.2).

Most effort occurs with bottom trawling gear, dominated by France. French bottom trawl effort peaked in 2007 but has been in decline since. Spanish effort for 2012 and 2013 is slightly lower than that reported for 2008 and 2009. A small (1-2%) proportion of effort is contributed by Portugal.

Pelagic trawling accounts for around 12-15% of effort within the area, again primarily by France and Spain. French effort had been stable at a low level since 2008 despite a slight increase in 2012.

Other gears are used within the area to lesser extents, with trammel and gillnetting accounting for around 10% each. France is again the dominant nation using both gear classes, particularly within the trammel category. French trammel net effort however, which was stable until 2009, has since decreased by approximately 90%. French gill net effort peaked in 2006 but has been relatively stable in recent years.

In 2012 and 2013 Spain reported large longline effort, well in excess of that reported by France. French effort has been stable for the last four years after increasing, in 2010, from a period of lower, stable, effort.

Table 5.9.1.10.3. Effort (kW*days) by country, gear and vessel size group within ICES Sub-area VIII EU, 2003-2013.

				2003			2004			2005			2006			2007		
Area	Gear	MS	vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
8 EU	beam	FRA	u10m	0		0	0		0	0		0	0		0	2552		2552
		FRA	o10t15m	15860		15860	16628		16628	35522		35522	4104		4104	438		438
		BEL	o15m	618667		618667	656093		656093	836309		836309	942990		942990	980041		980041
		FRA	o15m	0		0	9728		9728	0		0	0		0	0		0
		IRL	o15m	0		0	1492		1492	0		0	0		0	0		0
		UK	o15m	220	0	220	0	0	0	0	0	0	0	0	0	0	0	0
	bottom trawls	ESP	none	14301005	147836	14153169	12577966	78301	12499665	10234702	59641	10175061	10583711	75924	10507787	9658008	133403	9524605
		FRA	u10m	267514	0	267514	300223	0	300223	318094	0	318094	499881	0	499881	534888	0	534888
		UK	u10m	0		0	0		0	0		0	0		0	221		221
		ESP	o10t15m	0		0	0		0	0		0	0		0	0		0
		FRA	o10t15m	3067089	0	3067089	3820207	461	3819746	5430623	0	5430623	8384886	0	8384886	9142569	456	9142113
		UK	o10t15m	0		0	0		0	0		0	0		0	0		0
		BEL	o15m	0		0	0		0	0		0	0		0	0		0
		DEN	o15m	0		0	0		0	0		0	0		0	11850		11850
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	8356263	177729	8178534	9670496	229169	9441327	13681228	473093	13208135	14574204	424001	14150203	16077214	193593	15883621
		IRL	o15m	10028		10028	10663		10663	0		0	33917		33917	6448		6448
		NED	o15m	0		0	0		0	0		0	0		0	0		0
		PRT	o15m	98285	0	98285	11299	0	11299	21565	0	21565	163197	0	163197	569383	0	569383
		UK	o15m	67484	0	67484	129094	0	129094	80390	0	80390	104436	0	104436	0	0	0
	dredge	ESP	none	0		0	0		0	0		0	0		0	49		49
		FRA	u10m	130847		130847	113824		113824	156906		156906	218456		218456	122252		122252
		UK	u10m	125		125	0		0	0		0	0		0	120		120
		ESP	o10t15m	0		0	0		0	0		0	0		0	0		0
		FRA	o10t15m	397245	0	397245	424849	0	424849	475747	0	475747	598745	0	598745	505681	0	505681
		ESP	o15m	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	620		620	4130		4130	1722		1722	0		0	3117		3117
		IRL	o15m	17804		17804	0		0	0		0	0		0	0		0
	gill	ESP	none	1327604	10091	1317513	1789720	8707	1781013	2156856	20233	2136623	2310320	17137	2293183	2117502	2638	2114864
		ESP	u10m	0		0	0		0	0		0	0		0	0		0
		FRA	u10m	829544		829544	746587		746587	874296		874296	974274		974274	973714		973714
		UK	u10m	0		0	0		0	0		0	98		98	50		50
		ESP	o10t15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o10t15m	586583	0	586583	740538	0	740538	1514317	5614	1508703	1984675	1758	1982917	1658799	4902	1653897
		IRL	o10t15m	144		144	0		0	0		0	0		0	0		0
		UK	o10t15m	0	0		0	0		0	0		3096	3096		0	0	
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	1058556	95204	963352	1187019	53378	1133641	2058958	72668	1986290	2032257	115488	1916769	1695291	116516	1578775
		IRL	o15m	0		0	1800		1800	0		0	0		0	0		0
		UK	o15m	7163	0	7163	115138	89612	25526	146499	67015	79484	371984	275278	96706	124053	57053	67000
	longline	ESP	none	800335	24830	775505	852492	31131	821361	822640	60298	762342	743556	48533	695023	973453	61414	912039
		ESP	u10m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	u10m	236715	0	236715	293392	2024	291368	375098	880	374218	834555	0	834555	953642	0	953642
		UK	u10m	0		0	0		0	0		0	0		0	29		29
		ESP	o10t15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o10t15m	82748	0	82748	144520	0	144520	473380	0	473380	744255	1824	742431	653368	407	652961
		IRL	o10t15m	0		0	0		0	873		873	2473		2473	0		0
		PRT	o10t15m	0		0	0		0	0		0	0		0	0		0
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	155703	0	155703	165058	0	165058	138014	1417	136597	183189	850	182339	205807	0	205807
		IRL	o15m	485		485	4275		4275	8879		8879	11367		11367	13432		13432
		PRT	o15m	9663	9663	0	10329	10329	0	3550	0	3550	0	0	0	0	0	0
		UK	o15m	97042	87112	9930	111278	105982	5296	72748	64364	8384	81684	73441	8243	72877	51584	21293
	none	ESP	none	4634113	8196	4625917	4482906	1849	4481057	5520930	2778	5518152	4449478	358	4449120	5208751	1544	5207207
		ESP	u10m	0		0	0		0	0		0	0		0	0		0
		FRA	u10m	840213		840213	797987		797987	762283		762283	773490		773490	896775		896775
		PRT	u10m	7529		7529	13771		13771	16111		16111	18096		18096	18901		18901
		ESP	o10t15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o10t15m	178628		178628	179275		179275	186043		186043	348466		348466	266967		266967
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	4802		4802	0		0	6517		6517	3297		3297	11699		11699
		IRL	o15m	0		0	0		0	25000		25000	0		0	0		0
	pelagic trawls	ESP	none	15858441	0	15858441	5334468	0	5334468	4257594	0	4257594	3791866	0	3791866	4067360	0	4067360
		ESP	u10m	0		0	0		0	0		0	0		0	0		0
		FRA	u10m	19183		19183	2131		2131	10167		10167	8399		8399	4268		4268
		ESP	o10t15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o10t15m	312462	0	312462	267350	0	267350	569222	0	569222	746908	0	746908	753222	0	753222
		DEN	o15m	0		0	0		0	0		0	38027		38027	181719		181719
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	3656818	8225	3648593	1632314	0	1632314	4030865	7442	4023423	5409869	10239	5399630	3929356	6521	3922835
		GER	o15m	51022	0	51022	122593	22626	99967	298693	0	298693	183966	0	183966	0	0	0
		IRL	o15m	202314		202314	196430		196430	195308		195308	137196		137196	100377		100377
		NED	o15m	847751	49974	797777	203153	22284	180869	536805	26400	510405	472316	35596	436720	106118	0	106118
		UK	o15m	185116	0	185116	224597	0	224597	166621	0	166621	92445	0	92445	36288	0	36288
	pots	ESP	none	473182		473182	684460		684460	539499		539499	463663		463663	585731		585731
		ESP	u10m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	u10m	136492		136492	114423		114423	131759		131759	305672		305672	360067		360067
		UK	u10m	0		0	0		0	0		0	592		592	20		20
		ESP	o10t15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o10t15m	53430	0	53430	190520	0	190520	57703	0	57703	75783	0	75783	64399	0	64399
		IRL	o10t15m	0		0	0		0	0		0	0		0	0		0
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	184899	0	184899	158381	0	158381	127796	1596	126200	145664	0	145664	103419	0	103419
		GER	o15m	24255		24255	37485		37485	2646		2646	29507		29507	45482		45482
		UK	o15m	0		0	10185		10185	0		0	0		0	0		0
	trammel	ESP	none	266077	61	266016	441945	0	441945	654742	0	654742	527309	85	527224	536042	228	535814
		ESP	u10m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	u10m	342662		342662	375530		375530	488565		488565	809414		809414	876285		876285
		ESP	o10t15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o10t15m	527208	0	527208	754404	0	754404	1494444	948	1493496	2793823	0	2793823	2913921	774	2913147
		UK	o10t15m	0	0		0	0		0	0		0	0		0	0	
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	776822	8593	768229	865017	4268	860749	2116251	10200	2106051	2247644	9300	2238344	2390601	6900	2383701
8 EU Total				62108900	627514	61481386	50981535	660121	50321414	62078958	874587	61204371	70255096	1092908	69162188	70511626	637933	69873693

	2008			2009			2010			2011			2012			2013	
Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
0		0	0		0	2376		2376	352		352	1320		1320	4656		4656
0		0	0		0	1569		1569	1258		1258	440		440	412		412
776015		776015	924272		924272	912846		912846	898622		898622	723000		723000	766602		766602
0		0	0		0	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0
880	880	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7737417	84600	7652817	7741020	0	7741020	0	0	0	0	0	0	0	0	0	0	0	0
290303	0	290303	290303	0	290303	552605	118	552487	541491	0	541491	494582	0	494582	472844	0	472844
0		0	473		473	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	3188		3188	257		257
6819825	1799	6818026	6772216	1799	6770417	5756755	818	5755937	6053541	158	6053383	5569449	0	5569449	5289571	0	5289571
0		0	0		0	0		0	0		0	0		0	745		745
0		0	0		0	0		0	0		0	3449		3449	0		0
0		0	62415		62415	0		0	0		0	0		0	0		0
0	0	0	0	285745	-285745	0	0	0	0	0	0	5888458	1404693	4483765	6622086	1256437	5365649
14723046	278800	14444246	14639513	275019	14364494	9297977	172920	9125057	9629324	147705	9481619	8906240	114434	8791806	7834123	142544	7691579
1800		1800	2304		2304	0		0	1080		1080	2000		2000	0		0
0		0	12776		12776	8936		8936	0		0	1972		1972	0		0
598782	1089	597693	328846	0	328846	225946	0	225946	433805	0	433805	635372	8080	627292	571417	104280	467137
0	0	0	11807	0	11807	13619	6943	6676	46655	9166	37489	35454	287	35167	11522	5697	5825
0		0	588		588	0		0	0		0	0		0	0		0
89929		89929	89929		89929	119716		119716	114291		114291	193595		193595	214850		214850
130		130	0		0	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	300		300	1997		1997
411552	0	411552	400047	0	400047	142985	0	142985	151355	73	151282	302271	0	302271	246831	0	246831
0		0	0		0	0		0	0		0	661		661	1742		1742
0		0	0		0	7173		7173	8504		8504	6627		6627	3646		3646
0		0	0		0	0		0	0		0	0		0	0		0
2754707	3814	2750893	3143009	0	3143009	0	0	0	0	0	0	0	0	0	0	0	0
0		0	0		0	0		0	0		0	6674		6674	889		889
722318		722318	722318		722318	1383052		1383052	1175503		1175503	1157497		1157497	1249105		1249105
0		0	0		0	0		0	0		0	0		0	0		0
0	0	0	0	216	-216	0	0	0	0	0	0	438634	4074	434560	559907	3227	556680
1155945	3354	1152591	1146949	3354	1143595	761691	264	761427	776761	322	776439	764827	0	764827	765091	0	765091
0		0	0		0	0		0	0		0	0		0	0		0
2050	2050		5351	5351		2255	2255		0	0		1384	1384		0	0	
0	0	0	0	129503	-129503	0	0	0	0	0	0	933963	192060	741903	1333830	135036	1198794
2145942	16915	2129027	2129970	16915	2113055	2316170	27951	2288219	1756019	20922	1735097	1738276	14077	1724199	1807616	8522	1799094
0		0	0		0	0		0	0		0	0		0	0		0
129624	56919	72705	80970	24333	56637	149944	48818	101126	102354	18881	83473	91968	5216	86752	140039	16145	123894
1088386	63745	1024641	1371360	0	1371360	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	2237	1298	939	223	82	141
534891	0	534891	534891	0	534891	1295040	0	1295040	1306716	0	1306716	1275577	0	1275577	1175379	0	1175379
104		104	0		0	0		0	0		0	0		0	0		0
0	0	0	0	2291	-2291	0	0	0	0	0	0	627465	125457	502008	574384	95330	479054
510060	2029	508031	510060	2029	508031	833216	162	833054	780880	0	780880	789387	88	789299	882877	0	882877
0		0	873		873	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	67		67
0	0	0	0	536277	-536277	0	0	0	0	0	0	3850934	947089	2903845	2778278	699240	2079038
280569	17457	263112	280569	17457	263112	469680	75992	393688	559245	41262	517983	626869	14259	612610	580648	82246	498402
0		0	0		0	0		0	0		0	0		0	0		0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
68459	41960	26499	962	0	962	29556	12761	16795	97949	78882	19067	28658	0	28658	10444	565	9879
3783266	3889	3779377	3032063	0	3032063	0	0	0	0	0	0	0	0	0	0	0	0
0		0	0		0	0		0	0		0	820		820	0		0
831405		831405	831405		831405	0		0	421842		421842	0		0	0		0
19386		19386	23061		23061	25295		25295	0		0	0		0	0		0
0	0	0	0	0	0	0	0	0	0	0	0	13942	1081	12861	0	0	0
433638		433638	433638		433638	0		0	150856		150856	0		0	0		0
0	0	0	0	11863	-11863	0	0	0	0	0	0	892456	89852	802604	0	0	0
16177		16177	16177		16177	0		0	10311		10311	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0
3665276	2273	3663003	6461572	0	6461572	0	0	0	0	0	0	0	0	0	0	0	0
0		0	0		0	0		0	0		0	412		412	0		0
1419		1419	1419		1419	85441		85441	66138		66138	183928		183928	71675		71675
0	0	0	0	0	0	0	0	0	0	0	0	41087	93	40994	57865	445	57420
311515	0	311515	304711	0	304711	711918	442	711476	652067	0	652067	469503	0	469503	488038	0	488038
184439		184439	181440		181440	29240		29240	7123		7123	89296		89296	74238		74238
0	0	0	0	5406	-5406	0	0	0	0	0	0	1544248	5248	1539000	3014971	235	3014736
1576063	0	1576063	1522637	0	1522637	1952321	13177	1939144	1689379	882	1688497	2593727	3730	2589997	1666014	0	1666014
85325	0	85325	47295	0	47295	41237	0	41237	11025	0	11025	21933	0	21933	57568	0	57568
22418		22418	21871		21871	52668		52668	11100		11100	44306		44306	40305		40305
403896	0	403896	189568	0	189568	99986	67980	32006	23760	0	23760	0	0	0	353930	0	353930
167200	0	167200	251616	0	251616	61083	13886	47197	30569	0	30569	0	0	0	118794	0	118794
497069		497069	410088		410088	0		0	0		0	0		0	0		0
0	0	0	0	0	0	0	0	0	0	0	0	137	137	0	243	0	243
250780		250780	250780		250780	857994		857994	916707		916707	976144		976144	871368		871368
0		0	0		0	59		59	0		0	0		0	0		0
0	0	0	0	0	0	0	0	0	0	0	0	42861	21746	21115	236701	3389	233312
10741	0	10741	10741	0	10741	429758	412	429346	468645	0	468645	421214	0	421214	364878	0	364878
0		0	0		0	0		0	90		90	133		133	289		289
0	0	0	0	0	0	0	0	0	0	0	0	12877	2224	10653	25161	110	25051
14170	0	14170	14170	0	14170	347860	2052	345808	265852	0	265852	262653	0	262653	330954	0	330954
33957		33957	6174		6174	7272		7272	8009		8009	6896		6896	3649		3649
9856		9856	0		0	0		0	0		0	0		0	0		0
641249	66	641183	647739	0	647739	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	2400	0	2400	364	40	324
751703		751703	751703		751703	611963		611963	620549		620549	622598		622598	543563		543563
0	0	0	0	44	-44	0	0	0	0	0	0	377127	1681	375446	378192	1818	376374
2552035	0	2552035	2552035	0	2552035	2023726	516	2023210	2010833	0	2010833	2135966	0	2135966	2059131	261	2058870
547	547		0	0		0	0		0	0		0	0		0	0	
0	0	0	0	0	0	0	0	0	0	0	0	92439	92	92347	179486	368	179118
2358160	9760	2348400	2356030	9760	2346270	2336004	2284	2333720	2159736	11102	2148634	2396238	6207	2390031	2134802	4821	2129981
59464424	591946	58872478	61521724	1327362	60194362	33952987	449751	33503236	33958686	329355	33629331	48346309	2964587	45381722	46969189	2560838	44408351

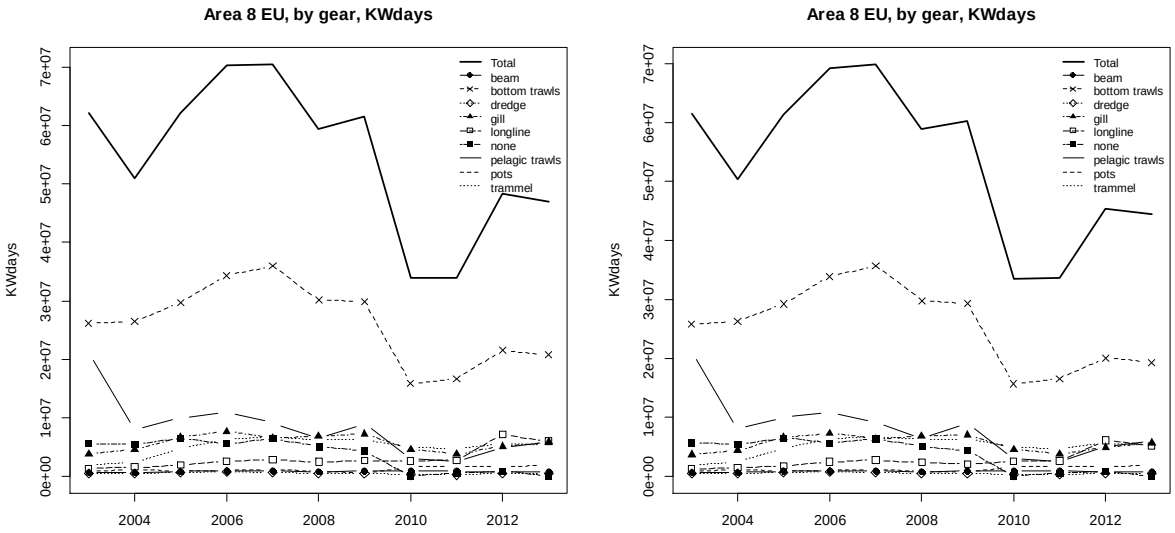


Figure 5.9.1.10.2. Effort (kW*days) reported within ICES Sub-area VIII EU by gear type, 2003-2013, with (left) and without (right) reported deepwater effort.

Deepwater VIII non-EU

Fishing effort in Area VIII non EU was minimal. The UK has some historical effort for gill nets and pots, and France conducted a small amount of bottom trawl in 2011. Spain reported bottom trawl and longline effort for 2012 and 2013 (Tables 5.9.1.10.4 and 5.9.1.10.5).

Table 5.9.1.10.4. Deep Sea fishing effort (kW*days) 2003 – 2013 by member state ICES Sub-area VIII non-EU.

Area	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
8 non EU	ESP										2397	1577
	FRA									497		
	UK				34994		5376					
8 non EU Total					34994		5376			497	2397	1577

Table 5.9.1.10.5. Deep Sea fishing effort (kW*days) 2003 – 2013 by gear and member state ICES Sub-area VIII non-EU.

Area	Gear	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
8 non EU	BOTTOM TRAWLS	ESP										1985	1374
		FRA									497		
	GILL	UK				34994							
	LONGLINE	ESP										412	202
	POTS	UK						5376					
8 non EU Total							34994		5376			497	2397	1577

Western Waters VIII non-EU

Prior to 2008 effort was only reported for 2006 by Spain and Portugal, Table 5.9.1.10.6. In 2013 Spain reported effort in all categories except pots. Longlines provided the main effort in the area. France and UK were the main contributors in 2010 and 2011, with Spain contributing the most in 2012 and 2013. Without this Spanish effort total effort in 2012 and 2013 in this area would have decreased compared to 2010 and 2011.

Table 5.9.1.10.6. Effort (kW*days) by country, gear and vessel size group within ICES Sub-area VIII non-EU, 2003-2013.

				2003			2004			2005			2006			2007		
Area	Gear	MS	vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
8 NON EU	bottom trawls	FRA	o10t15m	0		0	0		0	0		0	0		0	0		0
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		PRT	o15m	0		0	0		0	0		0	23762		23762	0		0
	gill	ESP	o15m	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	0		0	0		0	0		0	0		0	0		0
		UK	o15m	0	0		0	0		0	0		34994	34994		0	0	
	longline	FRA	u10m	0		0	0		0	0		0	0		0	0		0
		ESP	o10t15m	0		0	0		0	0		0	0		0	0		0
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	0		0	0		0	0		0	0		0	0		0
		UK	o15m	0		0	0		0	0		0	0		0	0		0
	none	ESP	o15m	0		0	0		0	0		0	0		0	0		0
	pelagic trawls	ESP	o15m	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	0		0	0		0	0		0	0		0	0		0
	pots	FRA	u10m	0		0	0		0	0		0	0		0	0		0
		UK	o15m	0	0		0	0		0	0		0	0		0	0	
	trammel	FRA	o10t15m	0		0	0		0	0		0	0		0	0		0
		ESP	o15m	0		0	0		0	0		0	0		0	0		0
8 NON EU Total				0	0	0	0	0	0	0	0	0	58756	34994	23762	0	0	0

2008			2009			2010			2011			2012			2013		
Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
0		0	0		0	2804		2804	294		294	0		0	0		0
0	0	0	0	0	0	0	0	0	0	0	0	4559	1985	2574	1374	1374	0
0	0	0	0	0	0	0	0	0	6121	497	5624	662	0	662	600	0	600
0		0	0		0	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	4353		4353
0		0	0		0	0		0	3825		3825	2995		2995	0		0
0	0		0	0		0	0		0	0		0	0		0	0	
0		0	0		0	860		860	0		0	0		0	0		0
0		0	0		0	0		0	0		0	2177		2177	4212		4212
0	0	0	0	0	0	0	0	0	0	0	0	188404	412	187992	112201	202	111999
0		0	0		0	30301		30301	14876		14876	10298		10298	1380		1380
0		0	0		0	73754		73754	66928		66928	9452		9452	8655		8655
0		0	0		0	0		0	0		0	3131		3131	0		0
0		0	0		0	0		0	0		0	4737		4737	1441		1441
0		0	0		0	52118		52118	71356		71356	7282		7282	8245		8245
0		0	0		0	0		0	0		0	0		0	296		296
5376	5376		0	0		0	0		0	0		0	0		0	0	
0		0	0		0	573		573	158		158	0		0	0		0
0		0	0		0	0		0	0		0	94		94	0		0
5376	5376	0	0	0	0	157606	0	157606	163264	497	162767	233791	2397	231394	142757	1576	141181

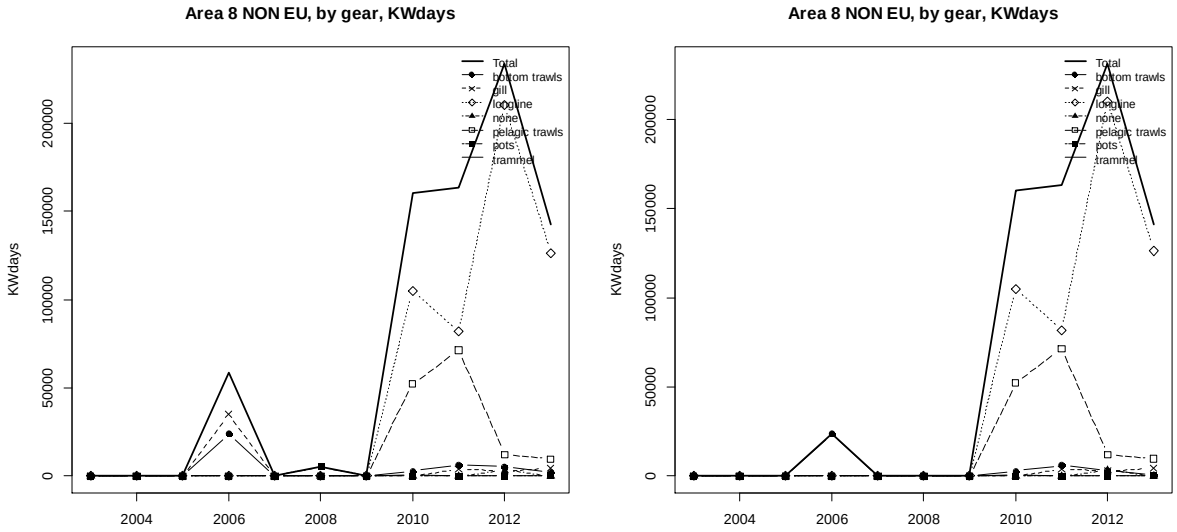


Figure 5.9.1.10.3. Effort (kW*days) reported within ICES Sub-area VIII NON EU by gear type, 2003-2013, with (left) and without (right) reported deepwater effort.

5.9.1.11 Fishing effort in ICES area IX

Deepwater IX EU

Most of the effort in area IX EU was contributed by Portugal, with lesser amounts by Spain, as shown in Tables 5.9.1.11.1 and 5.9.1.11.2. Occasional, small amounts of effort were recorded by France and UK.

Portuguese longline effort is the most important in the area and this gear is responsible for the overall trend, however in 2012 and 2013 Spain reported 10% of the effort.

Portuguese bottom trawl effort peaked in 2007, and none has been reported since 2011. Between 2003 and 2010 Spanish bottom trawl effort fluctuated slightly, but has stabilised in the last two years. Spain also reported large effort for pots in 2012 but this reduced in 2013.

Table 5.9.1.11.1. Deep Sea fishing effort (kW*days) 2003 – 2013 by member state ICES Sub-area IX EU.

Area	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
9 EU	ESP	161165	94341	98119	136223	280696	148213	100673			451033	415351
	FRA						1472	1472		588		
	PRT	323445	254615	465091	820110	964352	859628	787838	628818	601916	740053	850635
	UK				138797	11906						
9 EU Total		484610	348956	563210	1095130	1256954	1009313	889983	628818	602504	1191086	1265986

Table 5.9.1.11.2. Deep Sea fishing effort (kW*days) 2003 – 2013 by gear and member state ICES Sub-area IX EU.

Area	Gear	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
9 EU	BOTTOM TRAWLS	ESP	159002	88954	84697	117280	266955	135644	88673			285478	252794
		FRA									588		
		PRT	6182	37237	63980	90888	133980	85031	103658	37393	30150		
	DREDGE	ESP											349
		PRT			89	74				89			121
	GILL	ESP	351			159	210	1372				10935	8204
		FRA						1472	1472				
		PRT	3712		2956	4340	16061	12332	7604	2453	1760	772	1040
		UK				130733	11906						
	LONGLINE	ESP		1264	6112	14148	13531	10249	12000			64224	96516
		PRT	309598	213345	393156	710169	787845	734259	667917	580377	567197	734220	849188
		UK				4928							
	NONE	ESP	1812	4123	7310	4612		948				6989	
	PELAGIC TRAWLS	ESP										693	1539
		PRT	201		71	60		142	137		66		100
	POTS	ESP										80785	55163
		PRT		1865	354	1541	1331	3296	395	100	153	216	186
		UK				3136							
	TRAMMEL	ESP				24						1929	786
		PRT	3752	2168	4485	13038	25135	24568	8127	8406	2590	4845	
9 EU Total			484610	348956	563210	1095130	1256954	1009313	889983	628818	602504	1191086	1265986

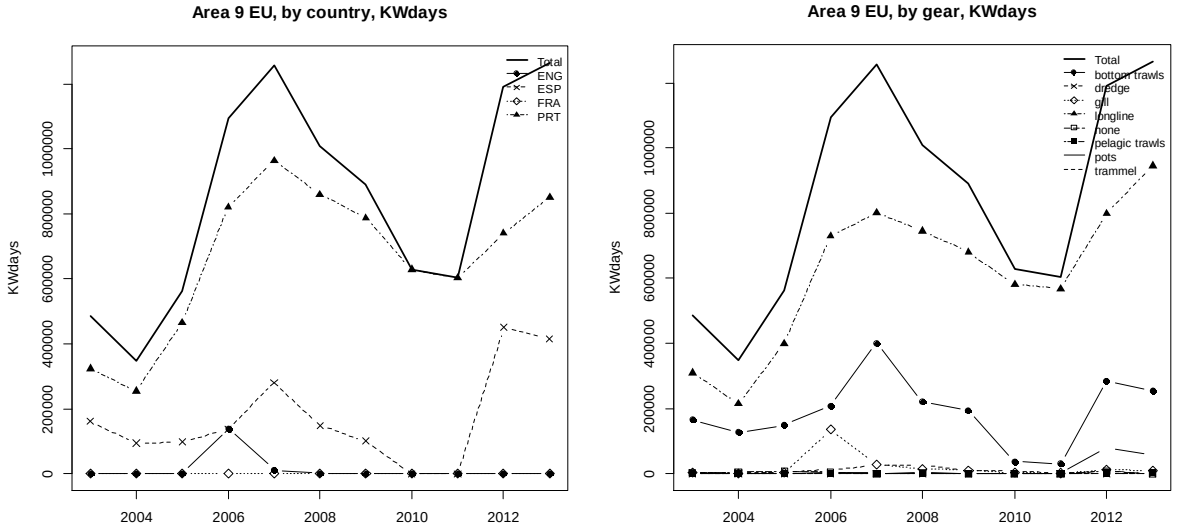


Figure 5.9.1.11.1. Deep Sea fishing effort (kW*days), 2003 – 2013, by country and by gear, in ICES Sub-area IX EU.

Western Waters **IX EU**

Two nations are active in this area, Portugal and Spain, although minor contributions from other nations do occur (Table 5.9.1.11.3 and Figure 5.9.1.11.2). Spanish data was not provided for 2010 or 2011.

Overall effort increased from 2001 peaking between 2007 and 2009. With the lack of Spanish data for 2009 and 2010 effort in the area appeared to drop by approximately 50%. The inclusion of Spanish data for 2012 and 2013 brings the total effort level back up to 2008 levels. Comparatively little effort is directed toward deepwater fisheries, apart from Portuguese longlines. Spanish deepwater effort was only provided in this area for 2009, 2012 and 2013. Given the low effort assigned to deepwater fisheries in these years deepwater effort may not have been significant over the period.

The main fishing activity is bottom trawling, and while this is carried out by both nations, Portuguese effort was historically much higher. Over the period Portuguese effort increased until 2007, but has been declining slowly since. In 2008 and 2009 it made up 80% of the bottom trawl effort. Spanish effort levels had remained relatively stable in recent years, up to 2009, but the effort reported for 2012 and 2013 is very similar to Portuguese effort for those years.

Spanish pelagic trawls were the next most important, in terms of effort, up to 2009. This effort has decreased in recent years, and while effort for 2013 has increased over 2012 it is approximately only 50% of that reported for 2009.

Gill net effort peaked in 2009. The lack of Spanish data in 2010 and 2011 masks what appears to be a decrease in those years. Effort seems to be increasing again in the last two years.

Effort for pots was quite stable between 2005 and 2009. The effort drop between 2010 and 2012 is partly explained by the lack of Spanish data for 2010 and 2011. Effort for 2013 is back up towards the series peaks.

Effort for trammel net has been increasing through the time series. The majority of this effort is attributable to Portugal

Table 5.9.1.11.3.- Effort (kW*days) by country, gear and vessel size group within ICES Sub-area IX EU, 2003-2013.

					2003			2004			2005			2006			2007		
Area	Gear	MS	vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
9 EU	beam	ESP	none	11804		11804	25121		25121	25154		25154	25077		25077	28021		28021
		ESP	o10t15m	0		0	0		0	0		0	0		0	0		0
	bottom trawls	ESP	none	3181331	159002	3022329	4915147	88954	4826193	3627423	84697	3542726	3455782	117280	3338502	2997130	266955	2730175
		ESP	o10t15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		IRL	o10t15m	0		0	0		0	0		0	0		0	0		0
		PRT	o10t15m	0		0	0		0	0		0	382		382	160		160
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		IRL	o15m	4208		4208	0		0	0		0	0		0	0		0
		PRT	o15m	7439197	6182	7433015	6720668	37237	6683431	6013544	63980	5949564	6534350	90888	6443462	8565712	133980	8431732
	dredge	ESP	none	10357		10357	23443		23443	24996		24996	26099		26099	30039		30039
		ESP	u10m	0		0	0		0	0		0	0		0	0		0
		ESP	o10t15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		PRT	o10t15m		0			0			89			74			0	
		ESP	o15m	0		0	0		0	0		0	0		0	0		0
	gill	ESP	none	418068	351	417717	538314	0	538314	635597	0	635597	576359	159	576200	699429	210	699219
		ESP	u10m	0		0	0		0	0		0	0		0	0		0
		ESP	o10t15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		PRT	o10t15m	49884	143	49741	0	0	0	51858	317	51541	98044	269	97775	192877	337	192540
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		PRT	o15m	73781	3569	70212	34971	0	34971	144251	2639	141612	249452	4071	245381	787484	15724	771760
		UK	o15m	0	0		0	0		0	0		130733	130733		11906	11906	
	longline	ESP	none	166152	0	166152	223019	1264	221755	409605	6112	403493	842183	14148	828035	395164	13531	381633
		ESP	u10m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		ESP	o10t15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o10t15m	0		0	0		0	0		0	0		0	0		0
		PRT	o10t15m	1928	0	1928	15187	0	15187	100271	16086	84185	165362	39265	126097	186728	52013	134715
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		PRT	o15m	393013	309598	83415	332549	213345	119204	525280	377070	148210	804450	670904	133546	825282	735832	89450
		UK	o15m	0	0		0	0		0	0		4928	4928		0	0	
	none	ESP	none	252817	1812	251005	327183	4123	323060	326040	7310	318730	309026	4612	304414	315969	0	315969
		PRT	u10m	1662240		1662240	1869222		1869222	1941234		1941234	2266749		2266749	2405784		2405784
		ESP	o10t15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	pelagic trawls	ESP	none	1998361		1998361	3483303		3483303	3067963		3067963	2802865		2802865	2872281		2872281
		ESP	u10m	0		0	0		0	0		0	0		0	0		0
		ESP	o10t15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		PRT	o10t15m		201			0			71			60			0	
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	0		0	0		0	0		0	0		0	0		0
		IRL	o15m	0		0	0		0	0		0	0		0	0		0
		PRT	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	pots	ESP	none	856098		856098	1168353		1168353	667483		667483	632260		632260	718759		718759
		ESP	o10t15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		PRT	o10t15m	3119	0	3119	518	0	518	73475	0	73475	121213	835	120378	178316	497	177819
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		GER	o15m	0		0	0		0	0		0	0		0	7272		7272
		PRT	o15m	8607	0	8607	4884	1865	3019	5363	354	5009	39918	706	39212	116636	834	115802
		UK	o15m	0	0	0	0	0	0	0	0	0	3136	3136	0	26201	0	26201
	trammel	ESP	none	174174	0	174174	298351	0	298351	314811	0	314811	275258	24	275234	276624	0	276624
		ESP	u10m	0		0	0		0	0		0	0		0	0		0
		ESP	o10t15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		PRT	o10t15m	36798	60	36738	623	0	623	65923	1055	64868	135727	910	134817	340488	3545	336943
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		PRT	o15m	37931	3692	34239	44231	2168	42063	189840	3430	186410	389797	12128	377669	923884	21590	902294
9 EU Total				16779868	484610	16295459	20025087	348956	19676131	18210111	563210	17647061	19889150	1095130	18794154	22902146	1256954	21645192

2008			2009			2010			2011			2012			2013		
Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
18232		18232	16275		16275	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	40016		40016	16775		16775
2872653	135644	2737009	2754960	0	2754960	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	103890	244	103646	151675	140	151535
0		0	0		0	82		82	0		0	0		0	0		0
13105		13105	35862		35862	45159		45159	50829		50829	43956		43956	44458		44458
0	0	0	0	88673	-88673	0	0	0	0	0	0	4649351	285234	4364117	5301382	252654	5048728
0	0	0	0	0	0	0	0	0	588	588	0	810	0	810	0	0	0
746		746	0		0	0		0	0		0	0		0	0		0
7883751	85031	7798720	7330305	103658	7226647	6532618	37393	6495225	6495312	30150	6465162	7276087	0	7276087	6661863	0	6661863
33876		33876	58241		58241	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	3311		3311
0	0	0	0	0	0	0	0	0	0	0	0	643	0	643	685731	349	685382
	0			0			89			0			0			121	
0		0	0		0	0		0	0		0	1128		1128	93028		93028
755203	1372	753831	1032701	0	1032701	0	0	0	0	0	0	0	0	0	0	0	0
0		0	0		0	0		0	0		0	7541		7541	8798		8798
0	0	0	0	0	0	0	0	0	0	0	0	407218	966	406252	516344	2361	513983
216928	901	216027	255167	89	255078	224190	1056	223134	147360	197	147163	149511	0	149511	184951	67	184884
0	0	0	0	0	0	0	0	0	0	0	0	170152	9969	160183	173819	5843	167976
0	1472	-1472	0	1472	-1472	0	0	0	736	0	736	3054	0	3054	0	0	0
849108	11431	837677	786677	7515	779162	705781	1397	704384	317634	1563	316071	255912	772	255140	388306	973	387333
0	0		0	0		0	0		0	0		0	0		0	0	
330491	10249	320242	456484	0	456484	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	147	27	120	0	0	0
0	0	0	0	675	-675	0	0	0	0	0	0	100570	25818	74752	124938	68185	56753
0		0	0		0	0		0	684		684	0		0	0		0
175810	45702	130108	205962	54347	151615	191645	17713	173932	219852	37019	182833	64340	30971	33369	64198	37315	26883
0	0	0	0	11325	-11325	0	0	0	0	0	0	174436	38379	136057	217328	28331	188997
753346	688557	64789	794901	613570	181331	782209	562664	219545	813714	530178	283536	370440	703249	-332809	481413	811873	-330460
0	0		0	0		0	0		0	0		0	0		0	0	
380804	948	379856	563673	0	563673	0	0	0	0	0	0	0	0	0	0	0	0
2412886		2412886	2506097		2506097	2761055		2761055	2740057		2740057	2688375		2688375	2592948		2592948
0	0	0	0	0	0	0	0	0	0	0	0	16029	1213	14816	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	250614	5776	244838	0	0	0
3041047		3041047	3346249		3346249	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	339		339	99		99
0	0	0	0	0	0	0	0	0	0	0	0	356919	345	356574	461109	1188	459921
	142			0			0			66			0			100	
0	0	0	0	0	0	0	0	0	0	0	0	895370	348	895022	1379792	351	1379441
0		0	0		0	0		0	0		0	323		323	0		0
0		0	0		0	0		0	0		0	0		0	736		736
0	0	0	0	137	-137	0	0	0	0	0	0	452	0	452	7315	0	7315
873801		873801	927395		927395	0		0	0		0	0		0	0		0
0	0	0	0	0	0	0	0	0	0	0	0	113379	79226	34153	582624	55115	527509
250634	139	250495	216433	267	216166	231522	100	231422	234767	153	234614	179447	216	179231	178683	186	178497
0	0	0	0	0	0	0	0	0	0	0	0	1866	1559	307	30433	48	30385
0		0	0		0	14544		14544	14948		14948	0		0	5612		5612
188751	3157	185594	178718	128	178590	138035	0	138035	174534	0	174534	106125	0	106125	130252	0	130252
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
352813	0	352813	359209	0	359209	0	0	0	0	0	0	0	0	0	0	0	0
0		0	0		0	0		0	0		0	1277		1277	0		0
0	0	0	0	0	0	0	0	0	0	0	0	355735	1869	353866	325117	786	324331
386146	2648	383498	397042	535	396507	474877	156	474721	444680	0	444680	397781	2652	395129	469618	0	469618
0	0	0	0	0	0	0	0	0	0	0	0	79352	60	79292	28052	0	28052
643654	21920	621734	866971	7592	859379	962700	8250	954450	985555	2590	982965	1006379	2193	1004186	978125	0	978125
22433785	1009313	21424614	23089322	889983	22199339	13064417	628818	12435688	12641250	602504	12038812	20268964	1191086	19077878	22288833	1265986	21023068

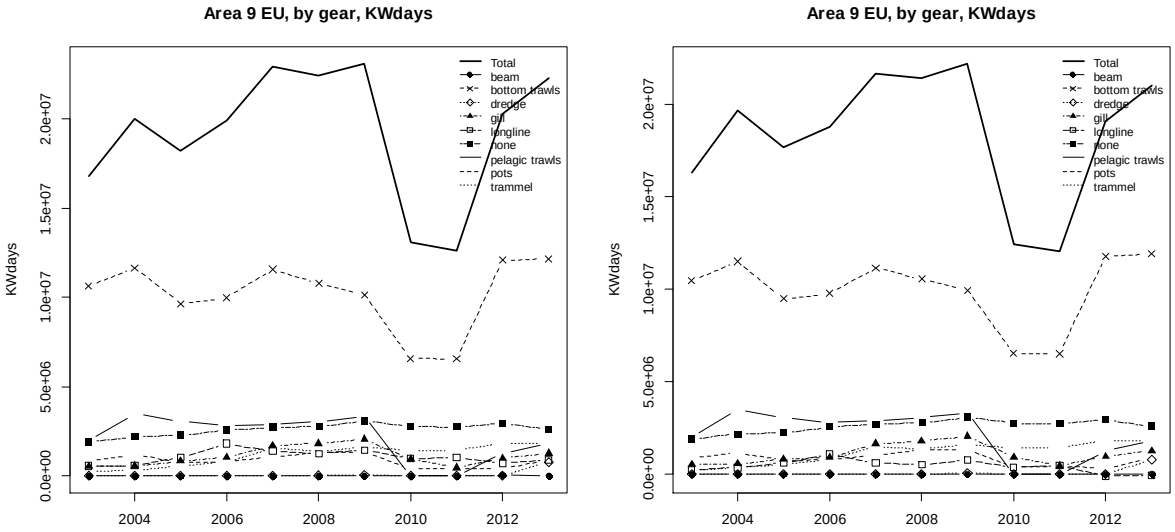


Figure 5.9.1.11.2.- Effort (kW*days) reported within ICES Sub-area IX EU by gear type, 2003-2013, with (left) and without (right) reported deepwater effort.

Deepwater IX non-EU

In Area IX non-EU effort peaked between 2003 and 2005 but has declined greatly since. All this effort is Portuguese and between 2005 and 2011 it has been solely longline. In 2012 and 2013 Spain reported bottom trawl effort, and a small amount of longline effort in 2013, (Table 5.9.1.11.4 and 5.9.1.11.5 and Figure 5.9.1.11.3).

Table 5.9.1.11.4.- Deep Sea fishing effort (kW*days) 2003 – 2013 by member state ICES Sub-area IX non-EU.

Area	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
9 NON EU	ESP										1687	3896
	PRT	163067	63968	163069	3356	13187	43272	11581	3401	5217		
9 NON EU Total		163067	63968	163069	3356	13187	43272	11581	3401	5217	1687	3896

Table 5.9.1.11.5.- Deep Sea fishing effort (kW*days) 2003 – 2013 by gear and member state ICES Sub-area IX non-EU.

Area	Gear	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
9 NON EU	BOTTOM TRAWLS	ESP										1687	2911
	GILL	PRT	229		1968								
	LONGLINE	ESP											985
		PRT	162301	63968	159709	3356	13187	43272	11581	3401	5217		
	PELAGIC TRAWLS	PRT			1250								
	TRAMMEL	PRT	537		142								
9 NON EU Total			163067	63968	163069	3356	13187	43272	11581	3401	5217	1687	3896

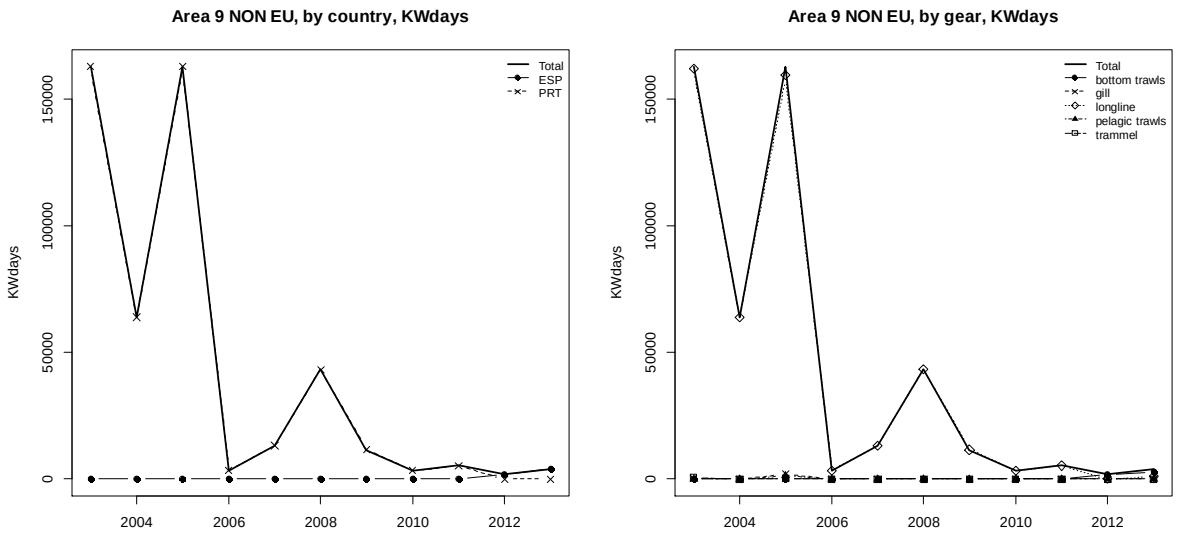


Figure 5.9.1.11.3. Deep Sea fishing effort (kW*days), 2003 – 2013, by country and by gear, in ICES Sub-area IX non-EU.

Western Waters IX non-EU

Little effort is associated with this area in recent years. Prior to 2006 a variety of gears were used, all at low levels, and all of them by Portugal (Table 5.9.1.11.6. and Figure 5.9.1.11.4.). Since 2006, effort declined and was focused in longlines.

Portuguese longline effort, which had been in decline since 2005, stopped in 2012. Spain reported effort for 2012 and 2013. Some of the longline effort is associated with deepwater fisheries.

In 2012 and 2013 Spain reported effort for bottom trawls, pelagic trawls and longlines.

Lithuania reported effort for pelagic trawl in 2012.

Table 5.9.1.11.6.- Effort (kW*days) by country, gear and vessel size group within ICES Sub-area IX non-EU, 2003-2013.(not including data from Portugal)

					2003			2004			2005			2006			2007	
Area	Gear	MS	vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
9 NON EU	bottom trawls	ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		PRT	o15m	224597		224597	27180		27180	72890		72890	0		0	0		0
	gill	ESP	o10t15m	0		0	0		0	0		0	0		0	0		0
		PRT	o10t15m	46304	229	46075	0	0	0	2471	0	2471	0	0	0	0	0	0
		PRT	o15m	69055	0	69055	805	0	805	32635	1968	30667	0	0	0	0	0	0
	longline	PRT	o10t15m	19729	11250	8479	0	0	0	24403	11850	12553	0	0	0	0	0	0
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		PRT	o15m	197108	151051	46057	35788	63968	-28180	167159	147859	19300	2714	3356	-642	4065	13187	-9122
	none	ESP	o15m	0		0	0		0	0		0	0		0	0		0
	pelagic trawls	ESP	o15m	0		0	0		0	0		0	0		0	0		0
		PRT	o15m		0			0			1250			0			0	
		LIT	o40m	0		0	0		0	0		0	0		0	0		0
	pots	PRT	o10t15m	642		642	0		0	2961		2961	0		0	0		0
		PRT	o15m	0		0	0		0	590		590	0		0	0		0
	trammel	PRT	o10t15m	9396		9396	0		0	9438		9438	0		0	0		0
		PRT	o15m	38958	537	38421	0	0	0	15314	142	15172	0	0	0	0	0	0
9 NON EU Total				605789	163067	442722	63773	63968	-195	327861	163069	166042	2714	3356	-642	4065	13187	-9122

	2008			2009			2010			2011			2012			2013		
Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
0	0	0	0	0	0	0	0	0	0	0	0	37661	1687	35974	103058	2911	100147
0		0	0		0	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	96		96
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	40340	0	40340	63221	985	62236
34660	43272	-8612	43305	11581	31724	8020	3401	4619	12812	5217	7595	4016	0	4016	0	0	0
0		0	0		0	0		0	0		0	3961		3961	0		0
0		0	0		0	0		0	0		0	1808		1808	625		625
	0			0			0			0			0			0	
0		0	0		0	0		0	0		0	10304		10304	0		0
0		0	0		0	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34660	43272	-8612	43305	11581	31724	8020	3401	4619	12812	5217	7595	98090	1687	96403	167000	3896	163104

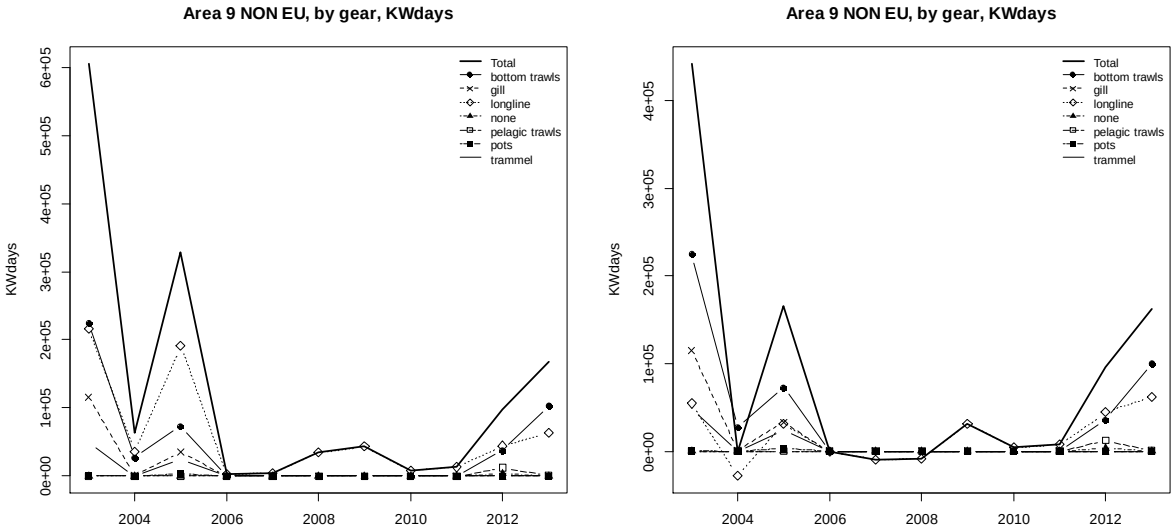


Figure 5.9.1.11.4.- Effort (kW*days) reported within ICES Sub-area IX non-EU by gear type, 2003-2013, with (left) and without (right) reported deepwater effort.

5.9.1.12 Fishing effort in ICES area X

Deepwater X EU

In 2013 Portugal updated their submission and reported large longline effort from 2003 to 2013. This effort was quite consistent between 2003 and 2006. It decreased from 2007 but has stabilised at a lower level since 2009, (Table 5.9.1.12.1 and 5.9.1.12.2 and Figure 5.9.1.12.1).

Table 5.9.1.12.1.- Deep Sea fishing effort (kW*days) 2003 – 2013 by member state ICES Sub-area X EU.

Area	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
10 EU	ESP										1440	1970
	PRT	6859253	7353888	6194044	6321724	5117068	5185391	2985438	3033941	3540374	2844791	3125218
10 EU Total		6859253	7353888	6194044	6321724	5117068	5185391	2985438	3033941	3540374	2846231	3127188

Table 5.9.1.12.2.- Deep Sea fishing effort (kW*days) 2003 – 2013 by gear and member state ICES Sub-area X EU.

Area	Gear	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
10 EU	BOTTOM TRAWLS	ESP										1058	
	LONGLINE	ESP										382	1970
		PRT	6859253	7353888	6194044	6321724	5117068	5185391	2985438	3033941	3540374	2844791	3125218
10 EU Total			6859253	7353888	6194044	6321724	5117068	5185391	2985438	3033941	3540374	2846231	3127188

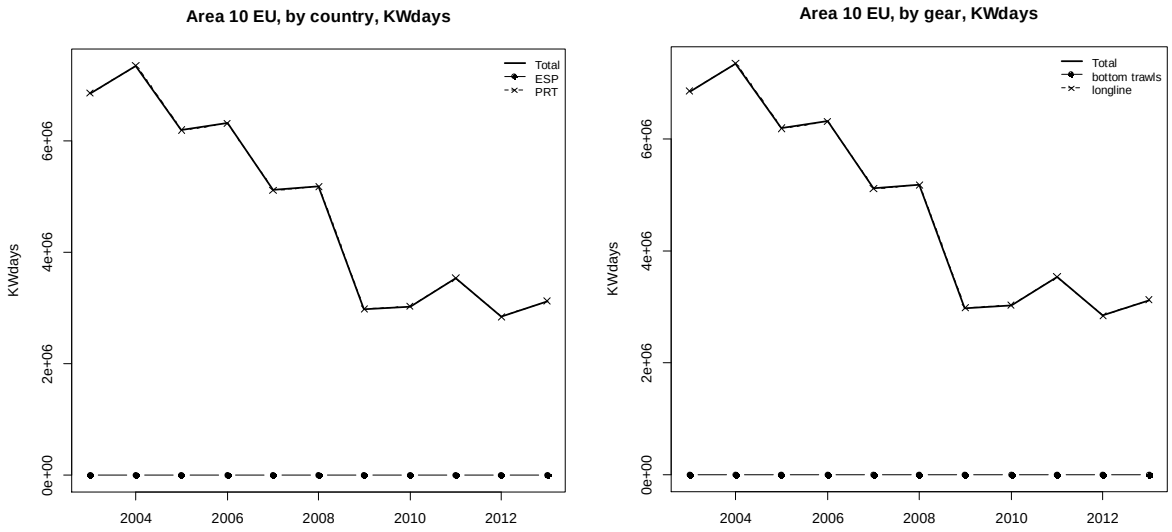


Figure 5.9.1.12.1. Deep Sea fishing effort (kW*days), 2003 – 2013, by country and by gear, in ICES Sub-area X EU.

Western Waters X EU

The recent data resubmission by Portugal has shown it to be the major contributor to effort in this region. All the Portuguese effort is for longline targeting deepwater species, (Table 5.9.1.12.3 and Figure 5.9.1.12.2). Effort peaked in 2004 before starting to decline. Effort seems to have stabilised at a lower level since 2009.

In 2012 and 2013 Spain reported effort for gill net and bottom trawl, but the majority was focused on longlines. Spanish longline effort is not deepwater effort.

Table 5.9.1.12.3.- Effort (kW*days) by country, gear and vessel size group within ICES Sub-area X EU, 2003-2013.

				2003			2004			2005			2006			2007		
Area	Gear	MS	vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
10 EU	bottom trawls	FRA	u10m	0		0	0		0	0		0	0		0	0		0
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		PRT	o15m	0		0	0		0	0		0	0		0	750		750
	gill	ESP	o10t15m	0		0	0		0	0		0	0		0	0		0
		ESP	o15m	0		0	0		0	0		0	0		0	0		0
	longline	PRT	u10m		2855321			2924377			2261557			2630334			2017611	
		ESP	o10t15m	0		0	0		0	0		0	0		0	0		0
		PRT	o10t15m		3076998			3572632			3273991			3131766			2103304	
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	0		0	0		0	0		0	0		0	0		0
		PRT	o15m	7517	926934	-919417	3550	856879	-853329	4201	658496	-654295	0	559624	-559624	0	996153	-996153
	none	ESP	o15m	0		0	0		0	0		0	0		0	0		0
	trammel	FRA	o10t15m	0		0	0		0	0		0	0		0	0		0
10 EU Total				7517	6859253	-919417	3550	7353888	-853329	4201	6194044	-654295	0	6321724	-559624	750	5117068	-995403

2008			2009			2010			2011			2012			2013		
Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
0		0	0		0	605		605	0		0	0		0	0		0
0	0	0	0	0	0	0	0	0	0	0	0	1256	1058	198	0	0	0
0		0	0		0	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	74		74	0		0
0		0	0		0	0		0	0		0	1374		1374	351		351
	1854247			1679865			1810018			2147165			1856418			2066268	
0		0	0		0	0		0	0		0	77		77	0		0
	2556403			825191			785038			898337			716665			700757	
0	0	0	0	0	0	0	0	0	0	0	0	101864	382	101482	130123	1970	128153
0		0	0		0	0		0	0		0	442		442	0		0
0	774741	-774741	12112	480382	-468270	0	438885	-438885	21182	494872	-473690	0	271708	-271708	0	358193	-358193
0		0	0		0	0		0	0		0	11752		11752	0		0
0		0	0		0	0		0	184		184	0		0	0		0
0	5185391	-774741	12112	2985438	-468270	0	3033941	-438885	21366	3540374	-473506	116839	2846231	-156309	130474	3127188	-229689

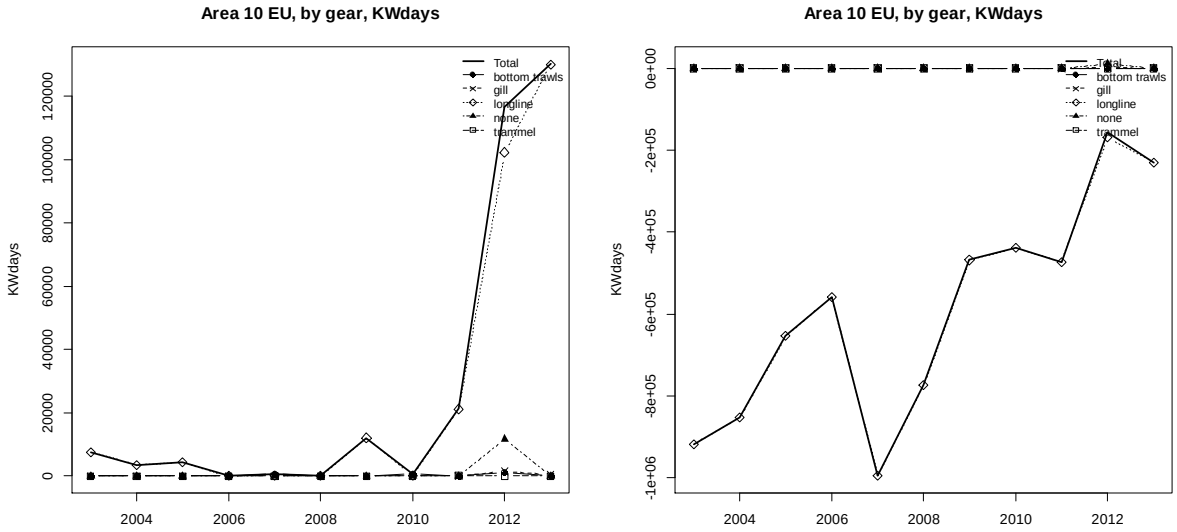


Figure 5.9.1.12.2.- Effort (kW*days) reported within ICES Sub-area X EU by gear type, 2003-2013, with (left) and without (right) reported deepwater effort.

Deepwater X non-EU

Most of the effort in the non EU part of X is Portuguese longline, with some pelagic trawl effort reported for 2005. This effort ceased in 2009. Ireland, 2004 to 2005, recorded some effort from bottom trawls. Spain reported a small amount of longline effort for 2012 and 2013, with a small amount of gill net effort in 2013, (Table 5.9.1.12.4 and 5.9.1.12.5 and Figure 5.9.1.12.3).

Table 5.9.1.12.4.- Deep Sea fishing effort (kW*days) 2003 – 2013 by member state ICES Sub-area X non-EU.

Area	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
10 NON EU	ESP										169	1183
	IRL		31378	8656								
	PRT	9188	26101	229555	8931	20388		2478				
10 NON EU Total		9188	57479	238211	8931	20388		2478			169	1183

Table 5.9.1.12.5.- Deep Sea fishing effort (kW*days) 2003 – 2013 by gear and member state ICES Sub-area X non-EU.

Area	Gear	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
10 NON EU	BOTTOM TRAWLS	IRL		31378	8656								
	GILL	ESP											125
	LONGLINE	ESP										169	1058
		PRT	9188	26101	25533	8931	20388		2478				
	PELAGIC TRAWLS	PRT			204022								
10 NON EU Total			9188	57479	238211	8931	20388		2478			169	1183

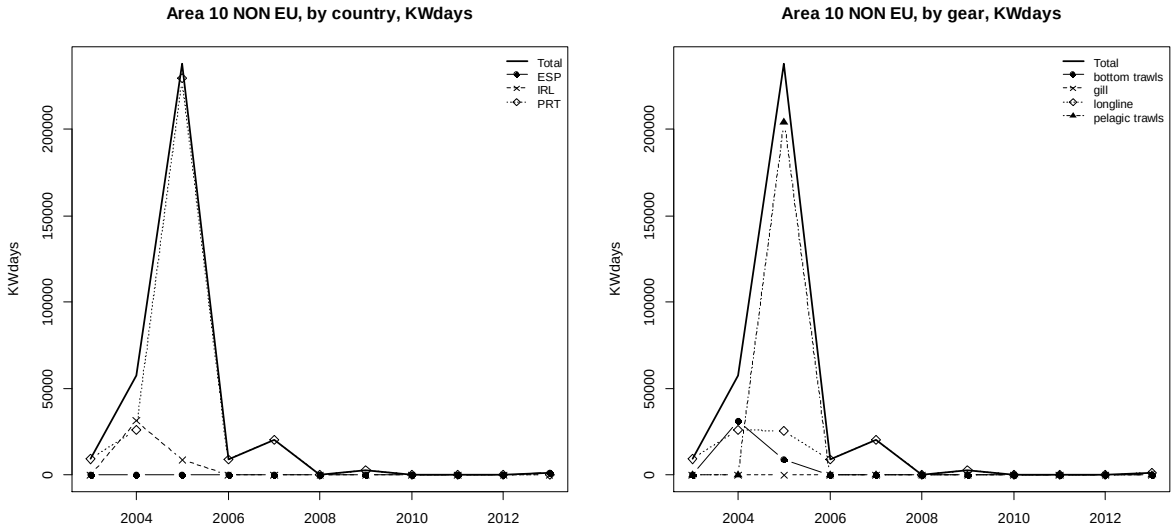


Figure 5.9.1.12.3. Deep Sea fishing effort (kW*days), 2003 – 2013, by country and by gear, in ICES Sub-area X non-EU.

Western Waters X non-EU

Prior to 2009 little effort was carried out within Area X non EU. The bulk of the effort was attributable to Portuguese longlines, with occasional effort from Irish bottom trawls or Portuguese pelagic trawls. Portuguese effort ceased in 2009 (Table 5.9.1.12.6 and Figure 5.9.1.12.4).

Since 2010 France has reported a small amount of effort spread across bottom trawls, dredge, gill nets, longlines, pelagic trawls and trammel nets.

Spain has reported a large amount of longline effort for 2012 and 2013. It has also reported smaller amounts of effort for bottom trawls, gill nets and pelagic trawls. Due to the lack of data from 2010 and 2011 it is impossible to say when these fisheries started.

Ireland reported some bottom trawl effort in 2004 and 2005, and a large amount of pelagic effort for 2013. The UK reported longline effort for 2013.

Table 5.9.1.12.6.- Effort (kW*days) by country, gear and vessel size group within ICES Sub-area X non-EU, 2003-2013.

				2003			2004			2005			2006			2007		
Area	Gear	MS	vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
10 NON EU	bottom trawls	FRA	u10m	0		0	0		0	0		0	0		0	0		0
		FRA	o10t15m	0		0	0		0	0		0	0		0	0		0
		ESP	o15m	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	0		0	0		0	0		0	0		0	0		0
		IRL	o15m	0	0		31378	31378		8656	8656		0	0		0	0	
	dredge	FRA	u10m	0		0	0		0	0		0	0		0	0		0
		FRA	o10t15m	0		0	0		0	0		0	0		0	0		0
	gill	FRA	u10m	0		0	0		0	0		0	0		0	0		0
		FRA	o10t15m	0		0	0		0	0		0	0		0	0		0
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	0		0	0		0	0		0	0		0	0		0
	longline	FRA	u10m	0		0	0		0	0		0	0		0	0		0
		ESP	o10t15m	0		0	0		0	0		0	0		0	0		0
		FRA	o10t15m	0		0	0		0	0		0	0		0	0		0
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	0		0	0		0	0		0	0		0	0		0
		PRT	o15m	16808	9188	7620	29859	26101	3758	39348	25533	13815	8931	8931	0	0	20388	-20388
		UK	o15m	0		0	0		0	0		0	0		0	0		0
	none	FRA	u10m	0		0	0		0	0		0	0		0	0		0
		ESP	o15m	0		0	0		0	0		0	0		0	0		0
	pelagic trawls	FRA	o10t15m	0		0	0		0	0		0	0		0	0		0
		ESP	o15m	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	0		0	0		0	0		0	0		0	0		0
		IRL	o15m	0		0	0		0	0		0	0		0	0		0
		PRT	o15m		0			0			204022			0			0	
	pots	FRA	u10m	0		0	0		0	0		0	0		0	0		0
		FRA	o10t15m	0		0	0		0	0		0	0		0	0		0
		PRT	o15m	0		0	0		0	0		0	0		0	0		0
	trammel	FRA	u10m	0		0	0		0	0		0	0		0	0		0
		FRA	o10t15m	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	0		0	0		0	0		0	0		0	0		0
10 NON EU Total				16808	9188	7620	61237	57479	3758	48004	238211	13815	8931	8931	0	0	20388	-20388

	2008			2009			2010			2011			2012			2013		
Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
0		0	0		0	2376		2376	0		0	880		880	246		246
0		0	0		0	1059		1059	2594		2594	5362		5362	680		680
0		0	0		0	0		0	0		0	3671		3671	2205		2205
0		0	0		0	1964		1964	810		810	1176		1176	600		600
0	0		0	0		0	0		0	0		0	0		0	0	
0		0	0		0	913		913	0		0	0		0	0		0
0		0	0		0	0		0	0		0	220		220	134		134
0		0	0		0	1522		1522	604		604	0		0	517		517
0		0	0		0	111		111	765		765	0		0	0		0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13302	125	13177
0		0	0		0	0		0	660		660	0		0	0		0
0		0	0		0	11797		11797	10262		10262	2900		2900	0		0
0		0	0		0	0		0	0		0	0		0	10660		10660
0		0	0		0	5698		5698	133		133	1233		1233	550		550
0	0	0	0	0	0	0	0	0	0	0	0	634674	169	634505	856848	1058	855790
0		0	0		0	0		0	4464		4464	7072		7072	6768		6768
1792	0	1792	12786	2478	10308	0	0	0	0	0	0	0	0	0	0	0	0
0		0	0		0	0		0	0		0	0		0	55399		55399
0		0	0		0	0		0	2251		2251	0		0	0		0
0		0	0		0	0		0	0		0	22800		22800	0		0
0		0	0		0	1575		1575	0		0	0		0	0		0
0		0	0		0	0		0	0		0	10517		10517	15514		15514
0		0	0		0	2106		2106	1986		1986	0		0	21967		21967
0		0	0		0	0		0	0		0	0		0	131830		131830
	0			0			0			0			0			0	
0		0	0		0	28		28	241		241	114		114	0		0
0		0	0		0	0		0	73		73	110		110	0		0
9929		9929	2478		2478	0		0	0		0	0		0	0		0
0		0	0		0	2483		2483	600		600	0		0	0		0
0		0	0		0	1483		1483	4676		4676	309		309	450		450
0		0	0		0	323		323	1221		1221	0		0	0		0
11721	0	11721	15264	2478	12786	33438	0	33438	31340	0	31340	691038	169	690869	1117670	1183	1116487

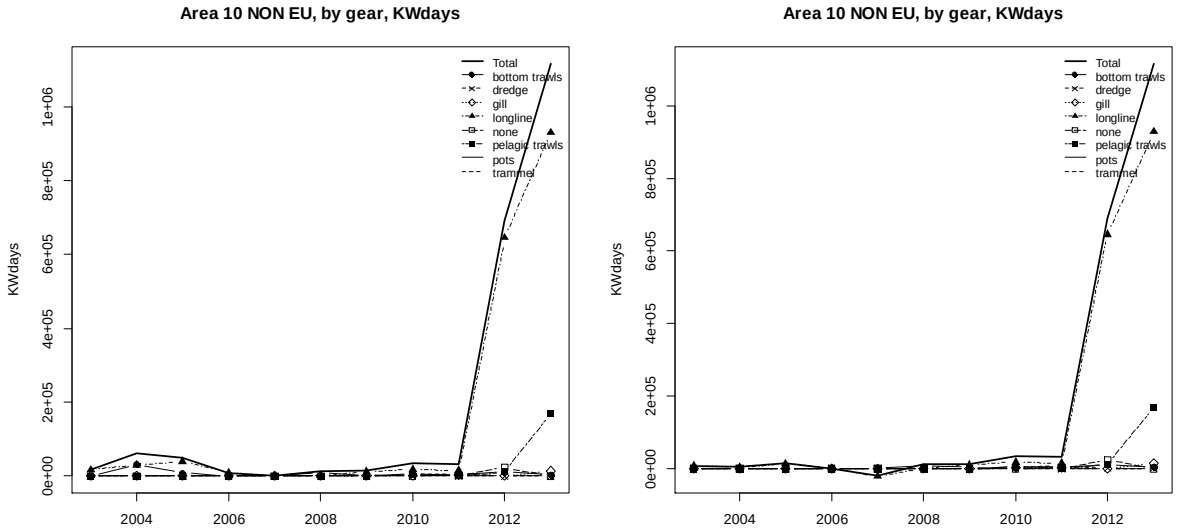


Figure 5.9.1.12.4.- Effort (kW*days) reported within ICES Sub-area X non-EU by gear type, 2003-2013, with (left) and without (right) reported deepwater effort.

5.9.1.13 Fishing effort in ICES area XII by fisheries and Member States only linked to Deep Sea species

Overall effort from ICES area XII is shown in Tables 5.9.1.13.1., 5.9.1.13.2 and Figure 5.9.1.13.1. Historically effort was reported by a number of countries, particularly UK. This effort covered bottom trawls, gill nets and pelagic trawls. In recent years, 2009, 2012 and 2013, Spain reported effort for bottom trawl, with France also reporting a very small amount in 2010 and 2011. Spain also reported small effort for pelagic trawl in the same years. Portugal supplied longline data for 2004.

Table 5.9.1.13.1.- Deep Sea fishing effort (kW*days) 2003 – 2013 by member state ICES Sub-area XII non-EU.

Area	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
12 NON EU	ESP							2361476			289766	212066
	EST			2712	28024	35328						
	FRA								5141	5530		
	GER	21000	22932	9708								
	IRL	29509										
	NED		14420	22944								
	PRT		63180									
	UK	102568	49670	113809	2356	4480	9359					
12 NON EU Total		153077	150202	149173	30380	39808	9359	2361476	5141	5530	289766	212066

Table 5.9.1.13.2.- Deep Sea fishing effort (kW*days) 2003 – 2013 by gear and member state ICES Sub-area XII non-EU.

Area	Gear	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
12 NON EU	BOTTOM TRAWLS	ESP							1896092			287490	210596
		EST			2712	28024	35328						
		FRA								5141	5530		
		IRL	28159										
		UK	12768	3310	9255								
	GILL	UK	87514	46360	104554	2356							
	LONGLINE	ESP										1232	
		IRL	1350										
		PRT		63180									
	NONE	ESP							241944				
	PELAGIC TRAWLS	ESP							223440			1044	1470
		GER	21000	22932	9708								
		NED		14420	22944								
	POTS	UK	2286				4480	9359					
12 NON EU Total			153077	150202	149173	30380	39808	9359	2361476	5141	5530	289766	212066

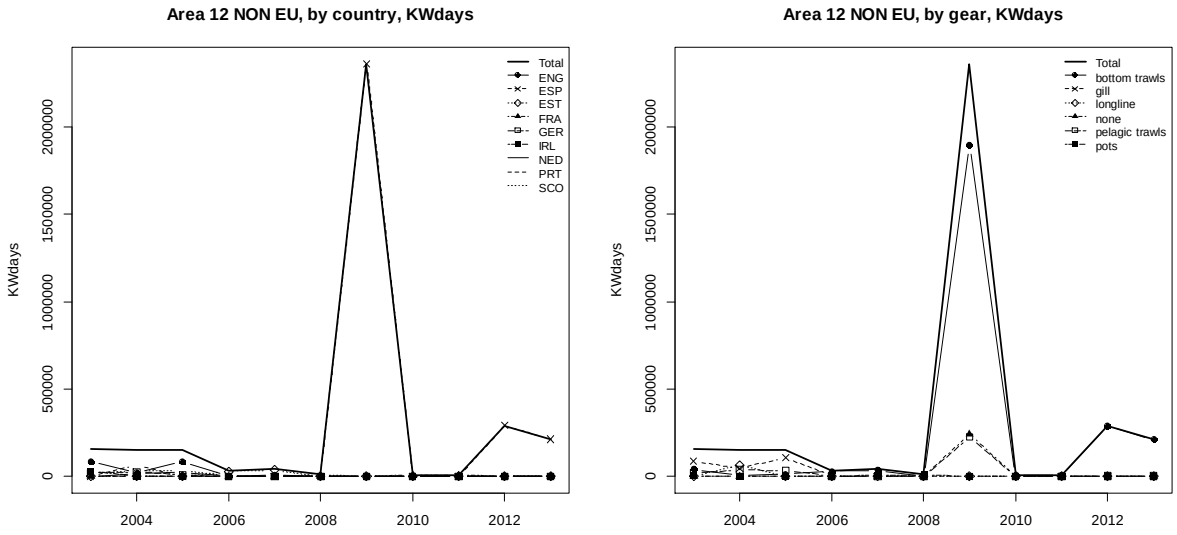


Figure 5.9.1.13.1. Deep Sea fishing effort (kW*days), 2003 – 2013, by country and by gear, in ICES Sub-area XII non-EU.

5.9.1.14 Fishing effort in ICES area XIV by fisheries and Member States only linked to Deep Sea species

Effort in ICES Area XIV (Tables 5.9.1.14.1, 5.9.1.14.2 and Figure 5.9.1.14.1), is mainly fished outside EU waters by Germany and the UK using otter trawls. UK effort peaked in 2004 but has since declined while German effort rose in the mid 2000s and remains at a relatively high level. Spain has reported otter trawl effort for 2009 with a smaller amount reported for 2012 and 2013. German pelagic trawling took place in the mid 2000s with effort also reported for 2011. Spain has also reported pelagic effort for 2012 and 2013. Portugal reported longline data for 2005.

Table 5.9.1.14.1.- Deep Sea fishing effort (kW*days) 2003 – 2013 by member state ICES Sub-area XIV non-EU.

Area	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
14 NON EU	ESP							194085			211076	288164
	GER	1067316	1975374	1349730	1248640	1427857	1719689	1960922	1694549	2419111	1754268	2088597
	PRT			35100								
	UK	801239	609192	261337		143075	96501	250077	186300	189933	105092	111520
14 NON EU Total		1868555	2584566	1646167	1248640	1570932	1816190	2405084	1880849	2609044	2070436	2488281

Table 5.9.1.14.2.- Deep Sea fishing effort (kW*days) 2003 – 2013 by gear and member state ICES Sub-area XIV non-EU.

Area	Gear	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
14 NON EU	BOTTOM TRAWLS	ESP							194085			41329	107637
		GER	1016316	1963026	1232628	1248640	1427857	1719689	1960922	1694549	2313211	1754268	2088597
		UK	801239	609192	261337		143075	96501	250077	186300	189933	105092	111520
	LONGLINE	PRT			35100								
	PELAGIC TRAWLS	ESP										169747	180527
		GER	51000	12348	117102						105900		
14 NON EU Total			1868555	2584566	1646167	1248640	1570932	1816190	2405084	1880849	2609044	2070436	2488281

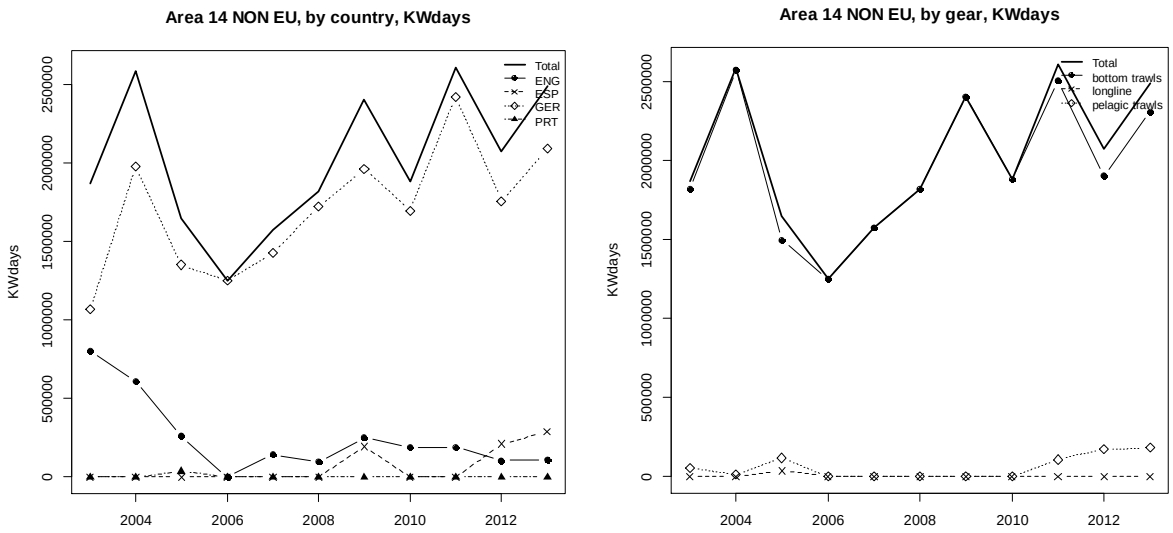


Figure 5.9.1.14.1. Deep Sea fishing effort (kW*days), 2003 – 2013, by country and by gear, in ICES Sub-area XIV non-EU.

5.9.1.15 Fishing effort in CECAF area 34.1.1

Deepwater 34.1.1 EU

The majority of the effort in CECAF 34.1.1 has been recorded by Portugal (Tables 5.9.1.15.1 and 5.9.1.15.2 and Figure 5.9.1.15.1). All of the Portuguese effort is for longline bar 2004 when it was recorded for trammel nets. In 2013 Spain reported some effort for longlines and trammel nets.

Table 5.9.1.15.1.- Deep Sea fishing effort (kW*days) 2003 – 2013 by member state CECAF area 34.1.1 EU.

Area	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
34.1.1 EU	ESP											5412
	PRT	2349	2327	9304	28137	9160	25508	26448	11077		11269	12606
34.1.1 EU Total		2349	2327	9304	28137	9160	25508	26448	11077		11269	18018

Table 5.9.1.15.2.- Deep Sea fishing effort (kW*days) 2003 – 2013 by gear and member state CECAF area 34.1.1 EU.

Area	Gear	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
34.1.1 EU	LONGLINE	ESP											4951
		PRT	2349		9304	28137	9160	25508	26448	11077		11269	12606
	TRAMMEL	ESP											461
		PRT		2327									
34.1.1 EU Total			2349	2327	9304	28137	9160	25508	26448	11077		11269	18018

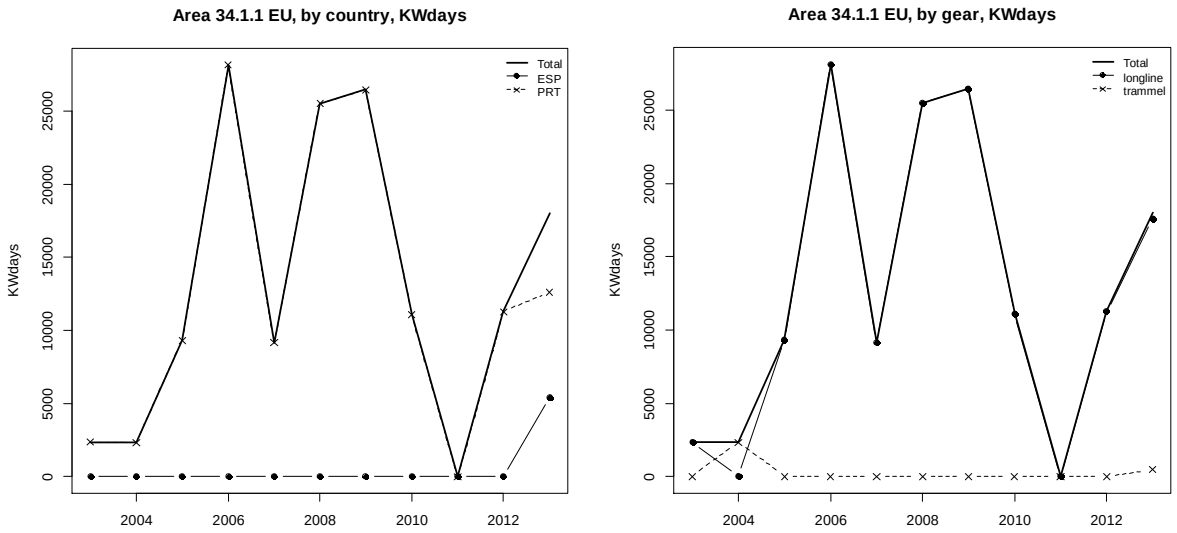


Figure 5.9.1.15.1. Deep Sea fishing effort (kW*days), 2003 – 2013, by country and by gear, in CECAF area 34.1.1 EU.

Western Waters 34.1.1 EU

Effort is low within this area. Prior to 2012 Portugal was the sole nation with effort reported in this area and this was all associated with longlining, bar bottom trawl effort reported in 2007 (Table 5.9.1.15.3 and Figure 5.9.1.15.2). Much of this effort is used to target deepwater fisheries. Between 2008 and 2009 greater effort became directed to other fisheries, and deepwater effort was further reduced in 2010 and 2011. In 2012 and 2013 however all Portuguese longlining effort was focused on deepwater.

In 2012 and 2013 Spain reported longlining effort which was not directed at deepwater fisheries. Spain also reported effort for pelagic trawls and trammel nets for 2013.

Table 5.9.1.15.3.- Effort (kW*days) by country, gear and vessel size group within CECAF area 34.1.1 EU, 2003-2013.

				2003			2004			2005			2006			2007		
Area	Gear	MS	vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
34.1.1 EU	bottom trawls	PRT	o15m	0		0	0		0	0		0	0		0	307168		307168
	longline	ESP	u10m	0		0	0		0	0		0	0		0	0		0
		ESP	o10t15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		PRT	o10t15m	0	0	0	0	0	0	0	0	0	0	0	0	412	0	412
		ESP	o15m	0		0	0		0	0		0	0		0	0		0
		PRT	o15m	7038	2349	4689	7502	0	7502	5011	9304	-4293	10952	28137	-17185	13356	9160	4196
	pelagic trawls	ESP	o15m	0		0	0		0	0		0	0		0	0		0
	trammel	ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		PRT	o15m		0			2327			0			0			0	
34.1.1 EU Total				7038	2349	4689	7502	2327	7502	5011	9304	-4293	10952	28137	-17185	320936	9160	311776

	2008			2009			2010			2011			2012			2013		
Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
0		0	0		0	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	106		106	63		63
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7888	4951	2937
0	0	0	6132	0	6132	15906	3258	12648	3641	0	3641	0	0	0	0	0	0
0		0	0		0	0		0	0		0	13032		13032	201121		201121
57440	25508	31932	62323	26448	35875	38270	7819	30451	47337	0	47337	0	11269	-11269	0	12606	-12606
0		0	0		0	0		0	0		0	81		81	8996		8996
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4455	461	3994
	0			0			0			0			0			0	
57440	25508	31932	68455	26448	42007	54176	11077	43099	50978	0	50978	13219	11269	1950	222523	18018	204505

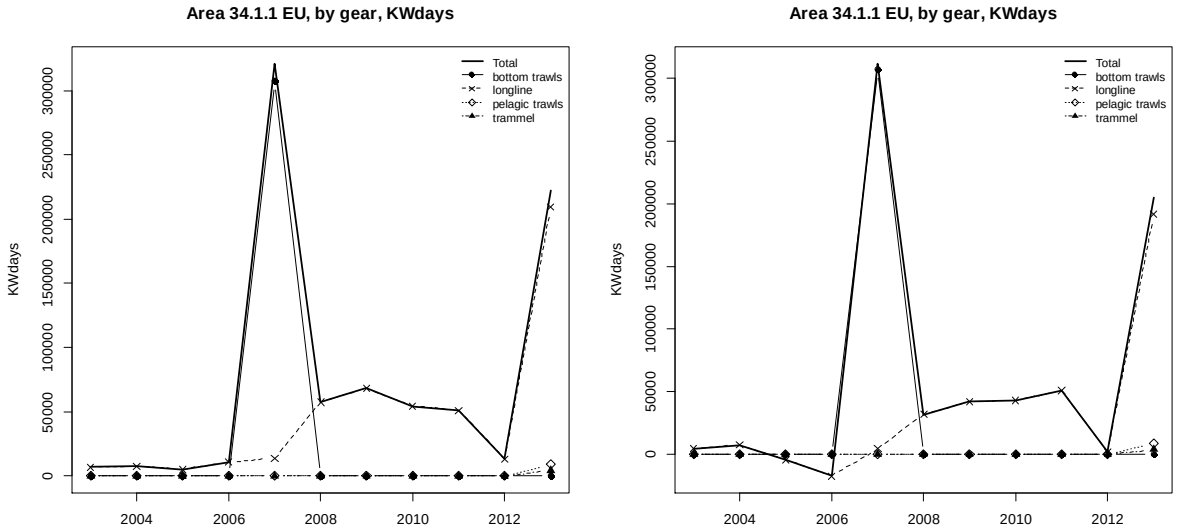


Figure 5.9.1.15.2.- Effort (kW*days) reported within CECAF area 34.1.1 EU by gear type, 2003-2013, with (left) and without (right) reported deepwater effort.

Western Waters 34.1.1 non-EU

Effort is low within this area. Portugal reported bottom trawl effort for 2009 and 2010 but the majority of its effort is for longlines, (Table 5.9.1.15.4 and Figure 5.9.1.15.3).

In 2012 and 2013 Spain reported small effort for longlines. In 2010 and 2013 Lithuania reported large effort for pelagic trawling.

Table 5.9.1.16.4.- Effort (kW*days) by country, gear and vessel size group within CECAF area 34.1.1 non-EU, 2003-2013.

				2003			2004			2005			2006			2007		
Area	Gear	MS	vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
34.1.1 NON EU	bottom trawls	ESP	o15m	0		0	0		0	0		0	0		0	0		0
		PRT	o15m	0		0	0		0	0		0	0		0	0		0
	longline	ESP	u10m	0		0	0		0	0		0	0		0	0		0
		ESP	o10t15m	0		0	0		0	0		0	0		0	0		0
		PRT	o10t15m	0		0	0		0	0		0	0		0	13503		13503
		ESP	o15m	0		0	0		0	0		0	0		0	0		0
		PRT	o15m	9135		9135	0		0	9213		9213	0		0	26276		26276
	pelagic trawls	LIT	o40m	0		0	0		0	0		0	0		0	0		0
	trammel	ESP	o15m	0		0	0		0	0		0	0		0	0		0
34.1.1 NON EU Total				9135	0	9135	0	0	0	9213	0	9213	0	0	0	39779	0	39779

2008			2009			2010			2011			2012			2013		
Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
0		0	0		0	0		0	0		0	0		0	503		503
0		0	12682		12682	22380		22380	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	44		44
0		0	0		0	0		0	0		0	0		0	920		920
21081		21081	14024		14024	14997		14997	31352		31352	0		0	0		0
0		0	0		0	0		0	0		0	309		309	9522		9522
59059		59059	38319		38319	45496		45496	9135		9135	30517		30517	61688		61688
0		0	0		0	365424		365424	0		0	0		0	6329628		6329628
0		0	0		0	0		0	0		0	0		0	614		614
80140	0	80140	65025	0	65025	448297	0	448297	40487	0	40487	30826	0	30826	6402919	0	6402919

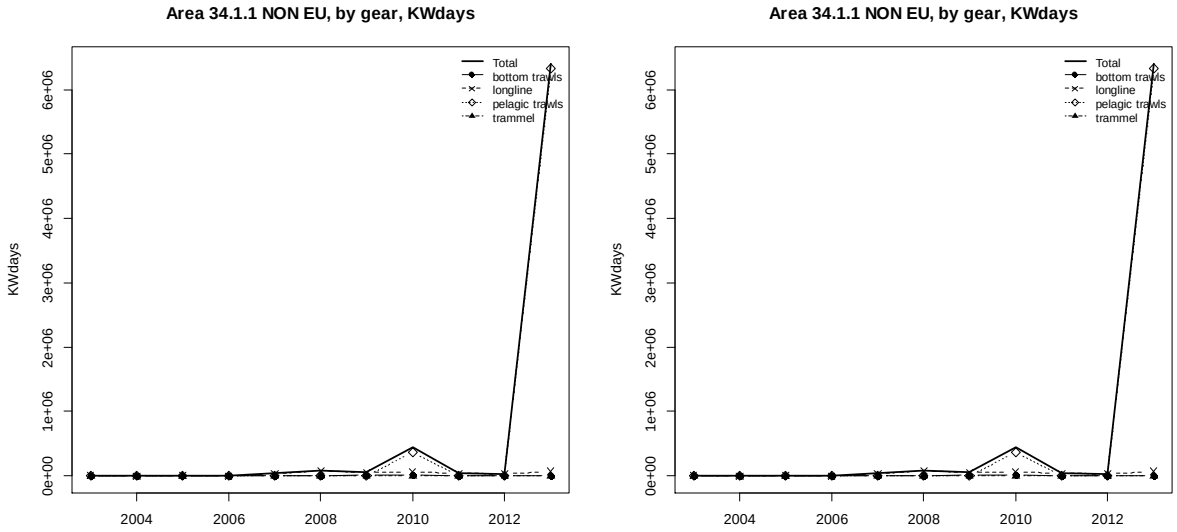


Figure 5.9.1.15.3.- Effort (kW*days) reported within CECAF area 34.1.1 non-EU by gear type, 2003-2013, with (left) and without (right) reported deepwater effort.

5.9.1.16 Fishing effort in CECAF area 34.1.2

Deepwater 34.1.2.EU

Up to 2011 all effort in CECAF 34.1.2 was in EU waters and recorded by Portugal, Tables 5.9.1.16.1 and 5.9.1.16.2 and Figure 5.9.1.16.1. Up to 2009 there had been an increasing trend in effort in the EU area, but this dropped in 2010. Since 2011 effort has begun increasing again. All this Portuguese effort is by longline. In 2013 Spain reported effort for longlines, pelagic trawls and pots.

Table 5.9.1.16.1.- Deep Sea fishing effort (kW*days) 2003 – 2013 by member state CECAF area 34.1.2 EU.

Area	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
34.1.2 EU	ESP											4640
	PRT		8771	12191	6808	14909	19293	24163	11727	15660	23668	27423
34.1.2 EU Total			8771	12191	6808	14909	19293	24163	11727	15660	23668	32063

Table 5.9.1.16.2.- Deep Sea fishing effort (kW*days) 2003 – 2013 by gear and member state CECAF area 34.1.2 EU.

Area	Gear	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
34.1.2 EU	LONGLINE	ESP											3333
		PRT		8771	12191	6808	14909	19293	24163	11727	15660	23668	27423
	PELAGIC TRAWLS	ESP											34
	POTS	ESP											1273
34.1.2 EU Total				8771	12191	6808	14909	19293	24163	11727	15660	23668	32063

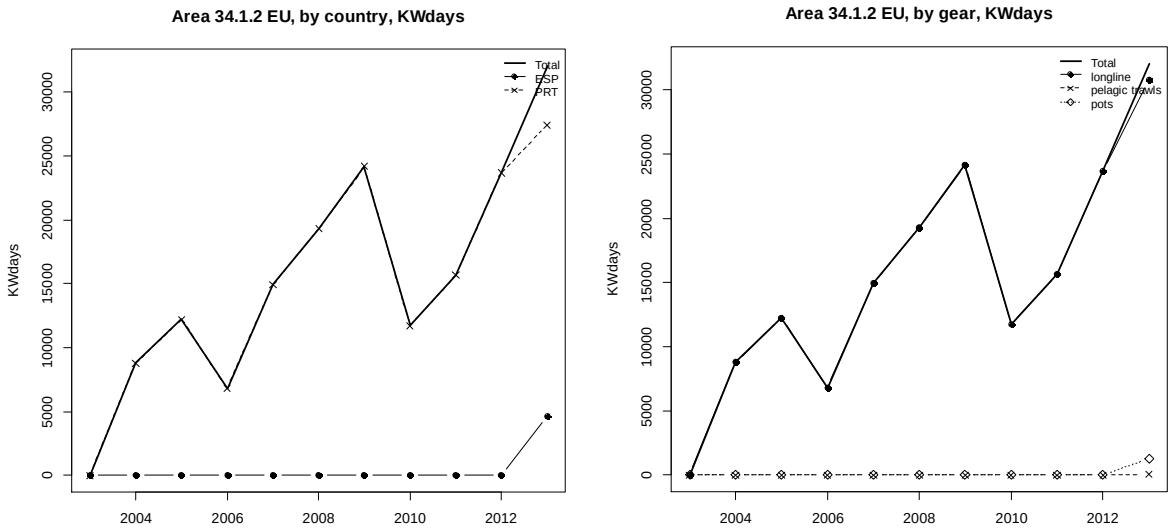


Figure 5.9.1.16.1. Deep Sea fishing effort (kW*days), 2003 – 2013, by country and by gear, in CECAF area 34.1.2 EU.

Western Waters 34.1.2.EU

Prior to 2012 Portugal contributed all the effort, mainly targeted at deepwater longlines, (Table 5.9.1.16.3 and Figure 5.9.1.16.2).

Spain reported longline effort for the first time in 2012. In 2013 Spain reported increased effort using longlines, as well as effort for bottom trawls, gill nets, pelagic trawls and pots.

Table 5.9.1.16.3.- Effort (kW*days) by country, gear and vessel size group within CECAF area 34.1.2 EU, 2003-2013.

				2003			2004			2005			2006			2007		
Area	Gear	MS	vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
34.1.2 EU	bottom trawls	ESP	o15m	0		0	0		0	0		0	0		0	0		0
	dredge	ESP	o10t15m	0		0	0		0	0		0	0		0	0		0
	gill	ESP	o10t15m	0		0	0		0	0		0	0		0	0		0
	longline	ESP	u10m	0		0	0		0	0		0	0		0	0		0
		ESP	o10t15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		PRT	o15m	2148	0	2148	19547	8771	10776	14743	12191	2552	10737	6808	3929	11494	14909	-3415
	none	ESP	o15m	0		0	0		0	0		0	0		0	0		0
	pelagic trawls	ESP	o10t15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		ESP	o15m	0		0	0		0	0		0	0		0	0		0
	pots	ESP	u10m	0		0	0		0	0		0	0		0	0		0
		ESP	o10t15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		IRL	o10t15m	0		0	0		0	0		0	0		0	0		0
	trammel	PRT	o15m	0		0	2327		2327	0		0	0		0	0		0
34.1.2 EU Total				2148	0	2148	21874	8771	13103	14743	12191	2552	10737	6808	3929	11494	14909	-3415

	2008			2009			2010			2011			2012			2013		
Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
0		0	0		0	0		0	0		0	0		0	747		747
0		0	0		0	0		0	0		0	0		0	18		18
0		0	0		0	0		0	0		0	0		0	294		294
0		0	0		0	0		0	0		0	0		0	9383		9383
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	157971	165	157806
0	0	0	0	0	0	0	0	0	0	0	0	43967	0	43967	626949	3168	623781
24638	19293	5345	43453	24163	19290	18584	11727	6857	34018	15660	18358	42717	23668	19049	29649	27423	2226
0		0	0		0	0		0	0		0	1484		1484	0		0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	121980	34	121946
0		0	0		0	0		0	0		0	0		0	45401		45401
0		0	0		0	0		0	0		0	0		0	7820		7820
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41315	1273	40042
0		0	0		0	0		0	90		90	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0
24638	19293	5345	43453	24163	19290	18584	11727	6857	34108	15660	18448	88168	23668	64500	1041527	32063	1009464

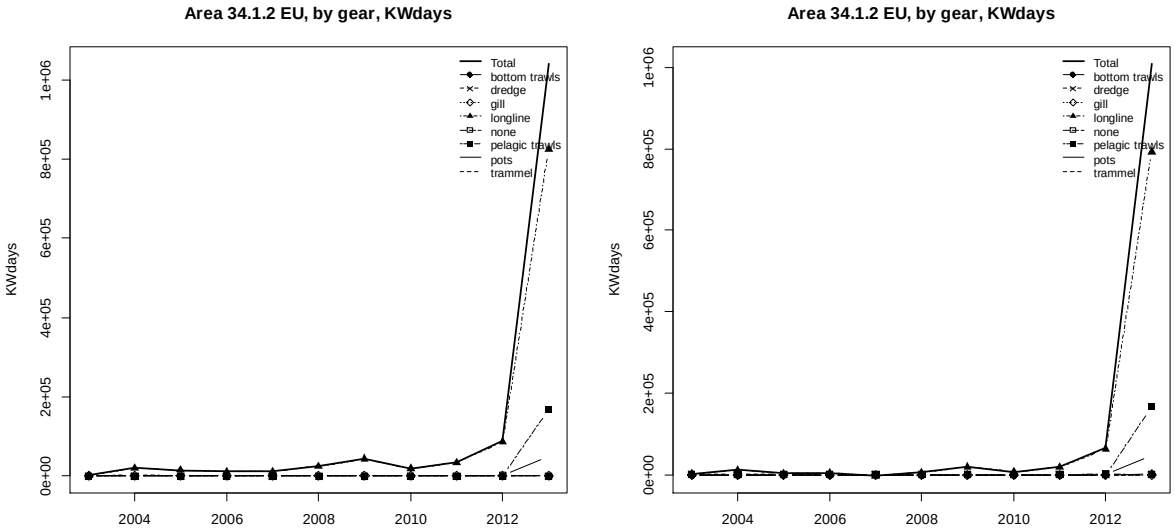


Figure 5.9.1.16.2.- Effort (kW*days) reported within CECAF area 34.1.2 EU by gear type, 2003-2013, with (left) and without (right) reported deepwater effort.

Western Waters 34.1.2 non-EU

Spain has reported some effort for 2012 and 2013, (Table 5.9.1.16.4 and Figure 5.9.1.16.3).

Table 5.9.1.16.4.- Effort (kW*days) by country, gear and vessel size group within CECAF area 34.1.2 non-EU, 2010-2013.

					2010			2011			2012			2013		
Area	Gear	MS	Vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
34.1.2 NO	longline	ESP	o10t15m	0		0	0		0	0		0	128		128
		ESP	o15m	0		0	0		0	1253		1253	6528		6528
	none	ESP	o15m	0		0	0		0	3308		3308	0		0
	pelagic tra	ESP	o15m	0		0	0		0	0		0	316		316
34.1.2 NON EU Total				0		0	0		0	4561		4561	6972		6972

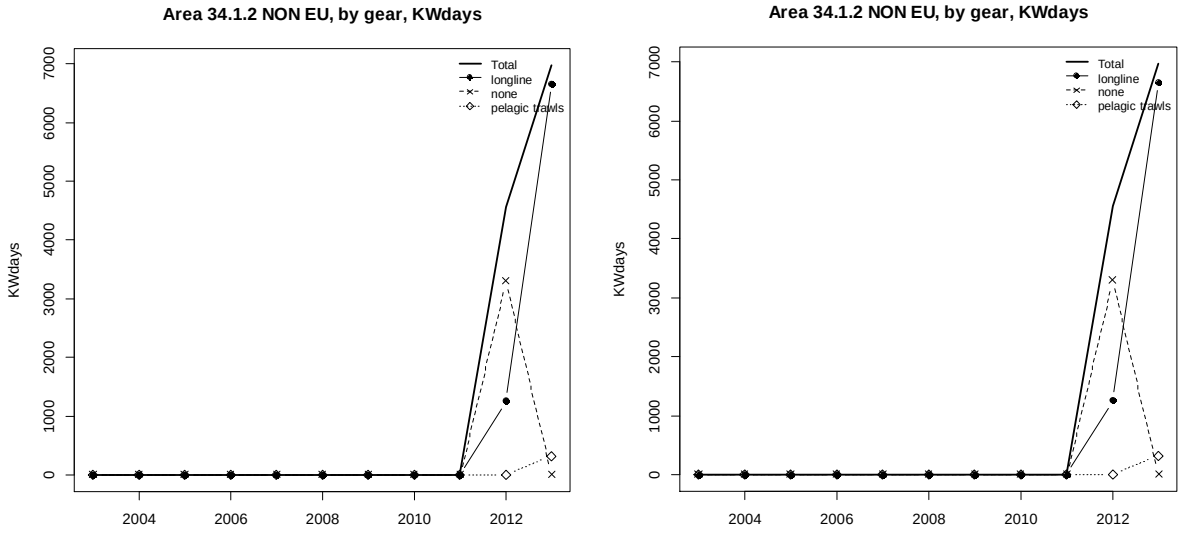


Figure 5.9.1.16.3.- Effort (kW*days) reported within CECAF area 34.1.2 non EU by gear type, 2003-2013, with (left) and without (right) reported deepwater effort.

5.9.1.17 Fishing effort in CECAF area 34.1.3

Deepwater and Western Waters 34.1.3 EU

No effort was submitted within this area.

Deepwater 34.1.3 non-EU

Very little effort has been recorded for this area. The Netherlands recorded some pelagic trawl effort for 2004, and Spain recorded bottom trawl effort for 2012 and 2013, (Tables 5.9.1.17.1 and 5.9.1.17.2 and Figure 5.9.1.17.1).

Table 5.9.1.17.1.- Deep Sea fishing effort (kW*days) 2003 – 2013 by member state CECAF area 34.1.3 non-EU.

Area	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
34.1.3 non EU	ESP										304166	111250
	NED		22944									
34.1.3 non EU Total			22944								304166	111250

Table 5.9.1.17.2.- Deep Sea fishing effort (kW*days) 2003 – 2013 by gear and member state CECAF area 34.1.3 non-EU.

Area	Gear	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
34.1.3 non2 EU	BOTTOM TRAWLS	ESP										304166	111250
	PELAGIC TRAWLS	NED		22944									
34.1.3 non EU Total				22944								304166	111250

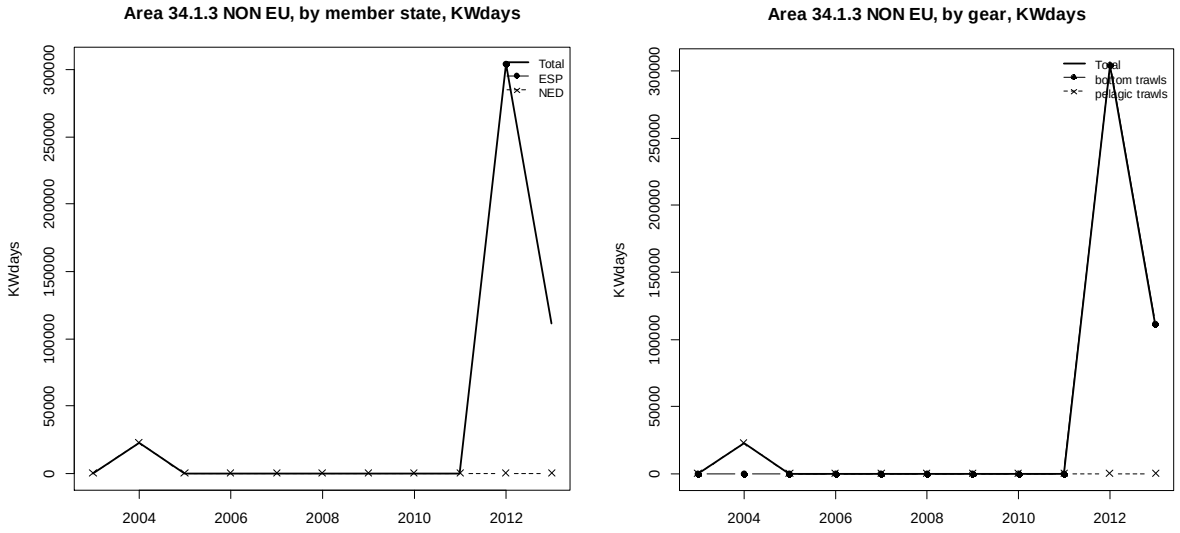


Figure 5.9.1.17.1. Deep Sea fishing effort (kW*days), 2003 – 2013, by country and by gear, in CECAF area 34.1.3 non-EU.

Western Waters 34.1.3 non-EU

Effort data is very sparse for this area. The Netherlands made a submission of deepwater effort in 2004, and in 2012 and 2013 Spain also submitted deepwater effort, (Table 5.9.1.17.3).

Table 5.9.1.17.3.- Western Waters fishing effort (kW*days) 2003 – 2013 by gear and member state CECAF area 34.1.3 non-EU.

					2003			2004			2005			2006			2007		
Area	Gear	MS	Vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
34.1.3 NON EU	bottom trawls	ESP	o15m		0			0			0			0			0	
	pelagic trawls	NED	o15m		0			22944			0			0			0	
34.1.3 NON EU Total					0			22944			0			0			0	

	2008			2009			2010			2011			2012			2013		
Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
	0			0			0			0			304166			111250	
	0			0			0			0			0			0	
	0			0			0			0			304166			111250	

5.9.1.18 Fishing effort in CECAF area 34.2

Deepwater 34.2.0 EU

A resubmission of data shows longline effort reported by Portugal since 2003. This effort has been in decline since 2008 and ceased in 2012 (Tables 5.9.1.18.1 and 5.9.1.18.2 and Figure 5.9.1.18.1). No effort was reported for 2013.

Table 5.9.1.18.1.- Deep Sea fishing effort (kW*days) 2003 – 2013 by gear and member state CECAF area 34.2.0 EU.

Area	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
34.2.0 EU	PRT	366344	256247	198187	63547	368643	344734	7927	11540	2373	1017	
34.2.0 EU Total		366344	256247	198187	63547	368643	344734	7927	11540	2373	1017	

Table 5.9.1.18.2.- Deep Sea fishing effort (kW*days) 2003 – 2013 by gear and member state CECAF area 34.2.0 EU.

Area	Gear	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
34.2.0 EU	LONGLINE	PRT	366344	256247	198187	63547	368643	344734	7927	11540	2373	1017	
34.2.0 EU Total			366344	256247	198187	63547	368643	344734	7927	11540	2373	1017	

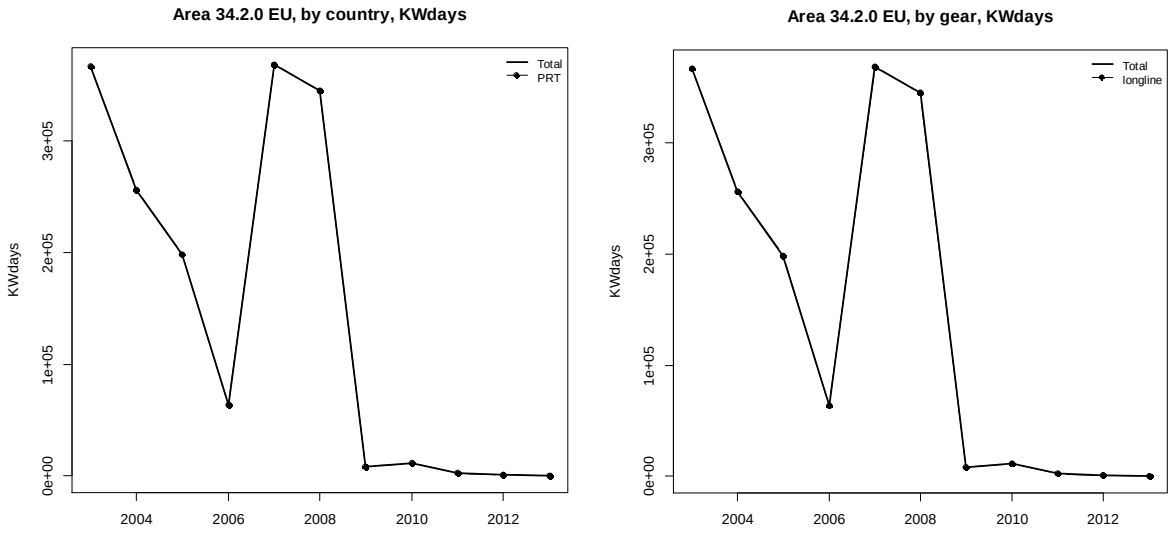


Figure 5.9.1.18.1. Deep Sea fishing effort (kW*days), 2003 – 2013, by country and by gear, in CECAF area 34.2.0 EU.

Western Waters 34.2.0 EU

Effort in this area has been in decline since a peak in 2007. The majority of the effort has been reported by Portugal for longline targeting deepwater fisheries and this seems to have ceased in 2012. Ireland carried out some pelagic trawls in 2008. Spain has recorded longline effort for 2012 and 2013, not aimed at deepwater fisheries, (Table 5.9.1.18.3 and Figure 5.9.1.18.2).

Table 5.9.1.18.3.- Effort (kW*days) by country, gear and vessel size group within CECAF area 34.2.0 EU, 2003-2013.

				2003			2004			2005			2006			2007		
Area	Gear	MS	vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
34.2.0 EU	longline	PRT	o10t15m		0			0			0			0			0	
		ESP	o15m	0		0	0		0	0		0	0		0	0		0
		PRT	o15m	0	366344	-366344	0	256247	-256247	0	198187	-198187	0	63547	-63547	0	368643	-368643
	none	ESP	o15m	0		0	0		0	0		0	0		0	0		0
	pelagic trawls	IRL	o10t15m	0		0	0		0	0		0	0		0	0		0
34.2.0 EU Total				0	366344	-366344	0	256247	-256247	0	198187	-198187	0	63547	-63547	0	368643	-368643

2008			2009			2010			2011			2012			2013		
Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
	45081			1287			429			0			0			0	
0		0	0		0	0		0	0		0	38360		38360	42893		42893
0	299653	-299653	0	6640	-6640	0	11111	-11111	7202	2373	4829	0	1017	-1017	0	0	0
0		0	0		0	0		0	0		0	588		588	0		0
291		291	0		0	0		0	0		0	0		0	0		0
291	299653	-299362	0	6640	-6640	0	11111	-11111	7202	2373	4829	38948	1017	37931	42893	0	42893

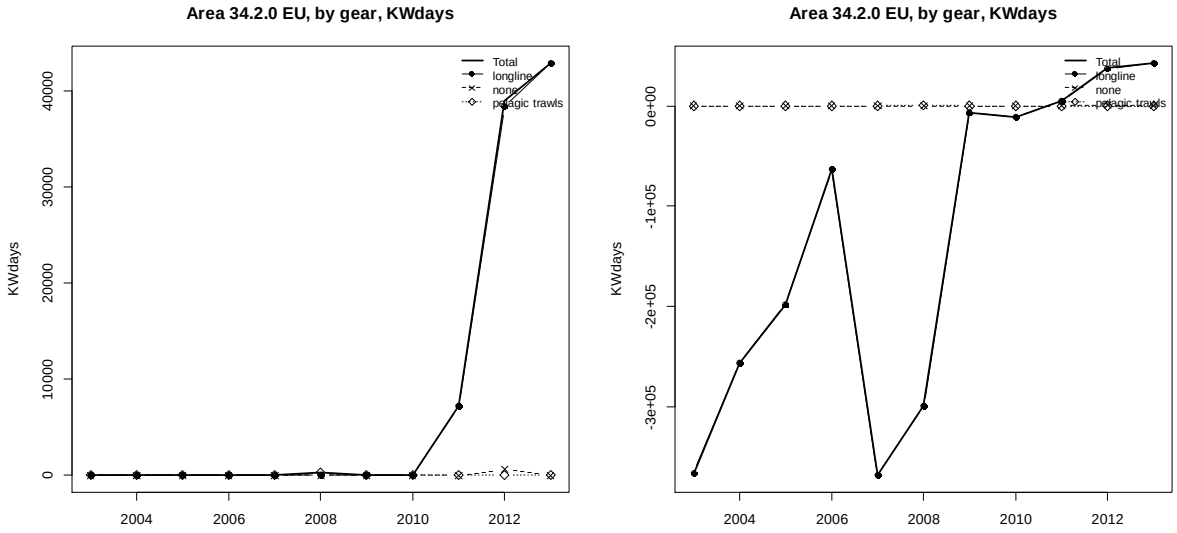


Figure 5.9.1.18.2.- Effort (kW*days) reported within CECAF area 34.2.0 EU by gear type, 2003-2013, with (left) and without (right) reported deepwater effort.

Deepwater 34.2.0 non-EU

Longline effort was reported for 2012 and 2013 by Portugal. Spain reported longline effort for 2013, (Table 5.9.1.18.4, Table 5.9.1.18.5, and Figure 5.9.1.18.3).

Table 5.9.1.18.4.- Deep Sea fishing effort (kW*days) 2003 – 2013 by member state CECAF area 34.2.0 non-EU.

Area	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
34.2.0 NON EU	ESP											2955
	PRT										18669	16928
34.2.0 NON EU Total											18669	19883

Table 5.9.1.18.5.- Deep Sea fishing effort (kW*days) 2003 – 2013 by gear and member state CECAF area 34.2.0 non-EU.

Area	Gear	MS	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
34.2.0 NON EU	LONGLINE	ESP											2955
		PRT										18669	16928
34.2.0 NON EU Total												18669	19883

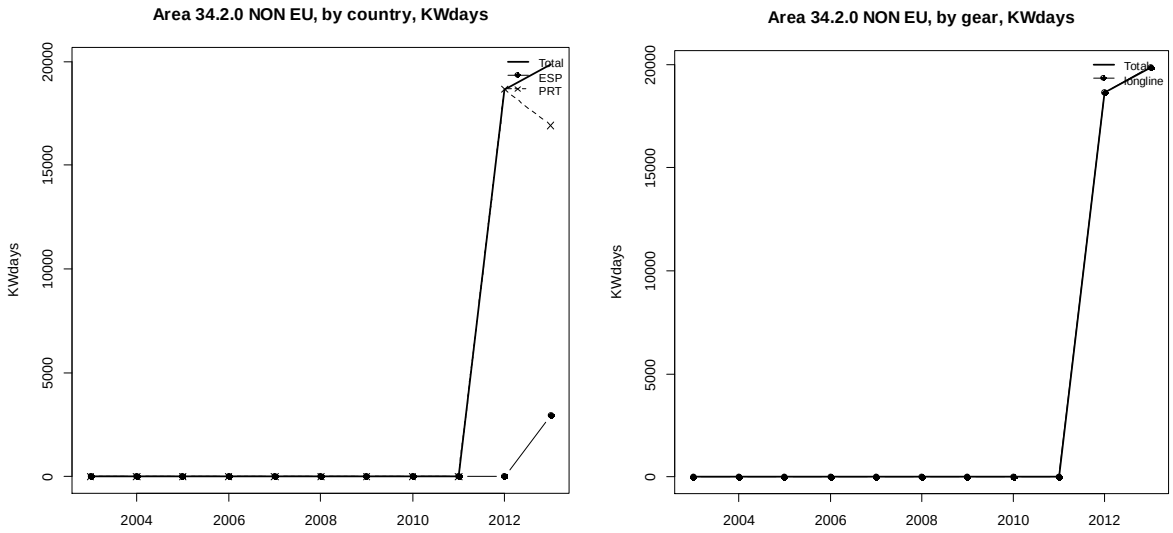


Figure 5.9.1.18.3. Deep Sea fishing effort (kW*days), 2003 – 2013, by country and by gear, in CECAF area 34.2.0 NON EU.

Western waters CECAF Area 34.2.0 non-EU

Effort is low within this area. Portugal has reported fluctuation longline effort since 2005. In 2012 Lithuania reported pelagic trawl effort. Spain has reported a large amount of longline effort in 2012 and 2013. In 2013 Spain also reported large effort for pelagic trawls and much smaller effort for bottom trawls and trammel nets (Table 5.9.1.18.6 and Figure 5.9.1.18.4).

Table 5.9.1.18.6.- Effort (kW*days) by country, gear and vessel size group within CECAF area 34.2.0 non-EU, 2009-2013.

				2003			2004			2005			2006			2007		
Area	Gear	MS	vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
34.2.0 NON EU	bottom trawls	ESP	o15m	0		0	0		0	0		0	0		0	0		0
	longline	ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		PRT	o15m	0	0	0	0	0	0	63205	0	63205	29104	0	29104	15157	0	15157
	none	ESP	o15m	0		0	0		0	0		0	0		0	0		0
	pelagic trawls	ESP	o15m	0		0	0		0	0		0	0		0	0		0
		LIT	o40m	0		0	0		0	0		0	0		0	0		0
	trammel	ESP	o15m	0		0	0		0	0		0	0		0	0		0
34.2.0 NON EU Total				0	0	0	0	0	0	63205	0	63205	29104	0	29104	15157	0	15157

2008			2009			2010			2011			2012			2013		
Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
0		0	0		0	0		0	0		0	0		0	1367		1367
0	0	0	0	0	0	0	0	0	0	0	0	542704	0	542704	534468	2955	531513
13984	0	13984	0	0	0	23696	0	23696	12582	0	12582	26186	18669	7517	31648	16928	14720
0		0	0		0	0		0	0		0	12201		12201	0		0
0		0	0		0	0		0	0		0	0		0	65268		65268
0		0	0		0	0		0	0		0	20608		20608	0		0
0		0	0		0	0		0	0		0	0		0	331		331
13984	0	13984	0	0	0	23696	0	23696	12582	0	12582	601699	18669	583030	633082	19883	613199

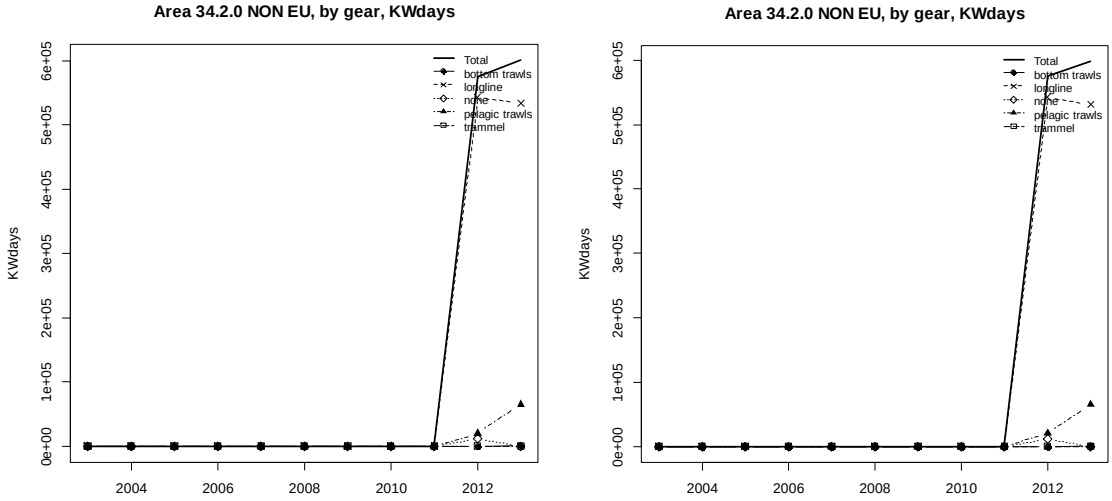


Figure 5.9.1.18.4.- Effort (kW*days) reported within CECAF area 34.2.0 non-EU by gear type, 2003-2013, with (left) and without (right) reported deepwater effort.

5.9.2 ToR 1b Catches (landings and discards) by area

In this section of the report tables showing catches by gear groups (regulated and unregulated), area and nation are only summaries. The full tables are available on the JRC website: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1413

Spain has not provided data for 2010 and 2011. This affects the analysis of the data in the report, particularly in more southern areas where Spain would be one of the major states participating in the fisheries of the area.

From 2012 Greenland halibut has now been included as a deepwater species. Their importance will be reflected in the Deepwater species tables, mainly in the northern regions. An analysis of the data shows Greenland halibut appearing in catch plots in ICES areas IV, VI EU, VI non EU, VII EU no 7d, and VIII EU. This is highly unlikely and may be due to issues of misidentification or misrecording.

The rankings of the species in the landing and discard tables were based on the last year, whereas in previous years it was based on the average of the last three years of the time series.

5.9.2.1 Catches in ICES area I by fisheries and Member States only linked to Deep Sea species

Area I non-EU

Table 5.9.2.1.1 shows the top 5 deepwater species landed in Area I (non EU). In 2012 and 2013 France provided landings information from bottom trawlers for Greenland halibut. It is the only information provided for this area.

Table 5.9.2.1.1. Top 5 deepwater species landed (tonnes) in Area I (non EU). The ranking is based according to last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
1 NON EU	GHL	L										3	8

5.9.2.2 Catches in ICES area II by fisheries and Member States only linked to Deep Sea species

Area II EU

Tables 5.9.2.2.1 shows the top 5 deepwater species landed in Area II (EU). Greenland halibut are the most important landed species for the last number of years with catches coming from UK, French and German bottom trawlers. Landings from French and Scottish vessels for this species increased greatly in 2013.

Blue ling was the next most important species but at very low levels. Catches increased up to 2009 and the fishery appears to be targeted as catches are quite clean. In 2011 blue ling trawl landings dropped considerably but have increased again in the last two years with the majority of landings in 2013 from French vessels. Occasionally landings of greater argentine are taken by pelagic and bottom trawls (Figure 5.9.2.2.1), probably in the region of the Norwegian slope. Occasional, small, landings of Greater Forkbeard and *Chimaera monstrosa* are also reported.

Table 5.9.2.2.1. Top 5 deepwater species landed (tonnes) in Area II (EU). The ranking is based according to last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
2 EU	GHL	L	56	12	30	38	45	55	105	104	28	58	228
2 EU	BLI	L	2	1	3	4	8	20	18	5	3	8	12
2 EU	ARU	L	2	430						23	0	0	0
2 EU	FOX	L	0	0		0	1	1	0				0
2 EU	CMO	L	0									0	0

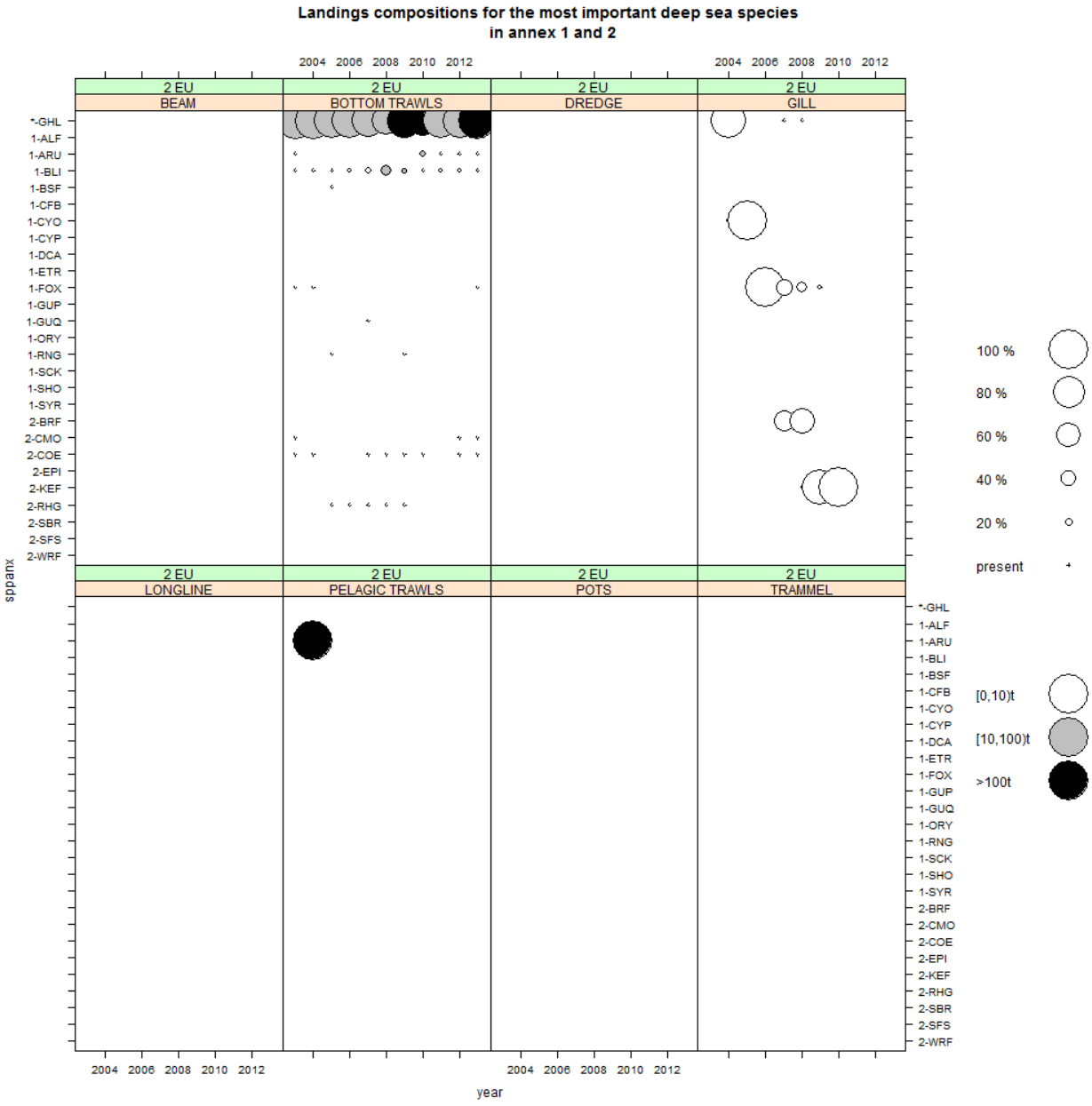


Figure 5.9.2.2.1. Landings of Annex 1&2 Deep Sea species (tonnes) 2003-2013 by gear ICES Area II EU. Size of circles represents relative contribution to landings, shading indicates quantity.

Area II non-EU

There was some deepwater effort in ICES Area II non-EU. Prior to 2013 Greenland halibut landings from UK, France and Germany bottom trawls were quite low. French and German landings increased a small amount in 2013, but for 2013 Spain reported quite large landings (Table 5.9.2.2.2). Small landings of *Helicolenus dactylopterus* and Roundnose grenadier were also reported

Table 5.9.2.2.2. Top 5 deepwater species landed (tonnes) in Area II (non EU). The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
2 NON EU	GHL	L	23	1	6	6	2	6	12	0		3	205
2 NON EU	BRF	L											4
2 NON EU	RNG	L							0				0

5.9.2.3 Catches in ICES area III by fisheries and Member States only linked to Deep Sea species

Area III no Baltic

No effort or landings data were reported for this area in 2013.

5.9.2.4 Catches in ICES area IV by fisheries and Member States only linked to Deep Sea species

Area IV

Table 5.9.2.4.1 shows the top 5 deepwater species landed in Area IV (EU). Greenland halibut catches have fluctuated greatly through the time series but showed a large increase in 2013. Landings of this species come from bottom trawl fisheries by France and the UK. The increase in 2013 landings was reported by Scotland.

Landings of Greater argentine, primarily from pelagic trawls, but also bottom trawls, had been sporadic up to 2011 but have begun to increase slowly in recent years. Blue ling catches have been relatively stable through the time series despite a spike in 2010. Conger eel landings, which had been stable at low levels from 2003 to 2008, doubled in 2009 and remained stable at this new level, before showing a decline again in 2013. Landings of Greater Forkbeard have been stable at a very low level since 2007.

Table 5.9.2.4.1. Top 5 deepwater species landed (tonnes) in Area IV (EU). The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
4	GHL	L	126	93	5	10	7	32	139	62	74	56	195
4	ARU	L	20	51	0	18				10	0	45	55
4	BLI	L	26	34	12	9	4	10	15	53	5	7	14
4	COE	L	8	8	8	6	8	6	15	14	17	11	7
4	FOX	L	7	3	4	5	1	1	1	1	1	2	2

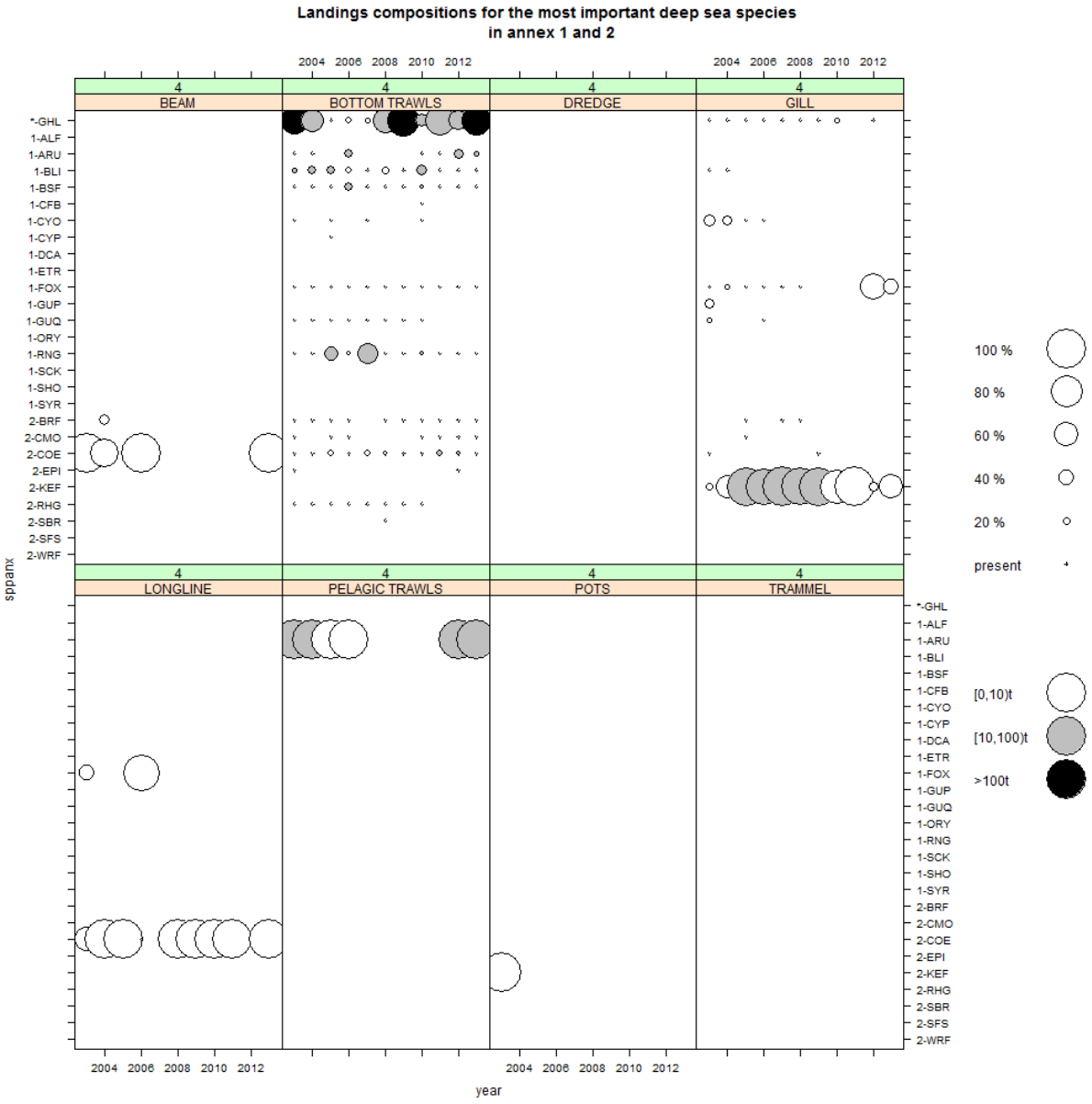


Figure 5.9.2.4.1. Landings of Annex 1&2 Deep Sea species (tonnes) 2003-2013 by gear ICES Area IV. Size of circles represents relative contribution to landings, shading indicates quantity.

Table 5.9.2.4.2 Top 5 deepwater species discarded (tonnes) in Area IV (EU).

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
4	GHL	D	0										
4	ARU	D	9	0				0					
4	BLI	D	86	31	11	0	0	0	0	0			
4	COE	D								0			
4	FOX	D											

5.9.2.5 Catches in ICES area V by fisheries and Member States

Deepwater V EU

Bottom trawls provides the majority of landings from this area (Figure 5.9.2.5.1, Table 5.9.2.5.1). The main species targeted historically were roundnose grenadier and blue ling. In recent years landings of Roundnose grenadier have decreased to very low levels. Blue ling landings were highest at the start of the time series, but have been in decline since 2003, apart from a second peak in 2007. Landings had been stable since 2010 before increasing again in 2013. Landings of Black scabbard have been increasing in the last three years.

Greenland halibut landings fluctuated greatly before peaking in 2010. Landings have been in decline since. Small landings of *Chimaera monstrosa* have been reported by France since 2010.

In 2010 Scotland reported landings of greater silver smelt and France both Portuguese dogfish and black dogfish.

Up to 2009 gill nets were landing small amounts, less than 10 tonnes, of blue ling, and in the early part of the time series also caught deepwater red crab, *Chaceon affinis*, but this ended in 2006. Netherlands pelagic trawlers landed greater silver smelt in 2004 and 2005 but nothing since.

Beam trawl data from 2003 and 2004 may be misclassified bottom trawl data.

Table 5.9.2.5.1. Top 5 deepwater species landed in ICES Area V (EU). The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
5 EU	BLI	L	895	859	644	647	807	592	591	358	303	398	573
5 EU	BSF	L	145	81	71	75	96	145	145	111	79	114	163
5 EU	CMO	L	1	0						23	12	10	25
5 EU	RNG	L	656	682	706	747	769	404	404	309	8	23	25
5 EU	GHL	L	94	87	23	11	10	64	118	132	12	2	13

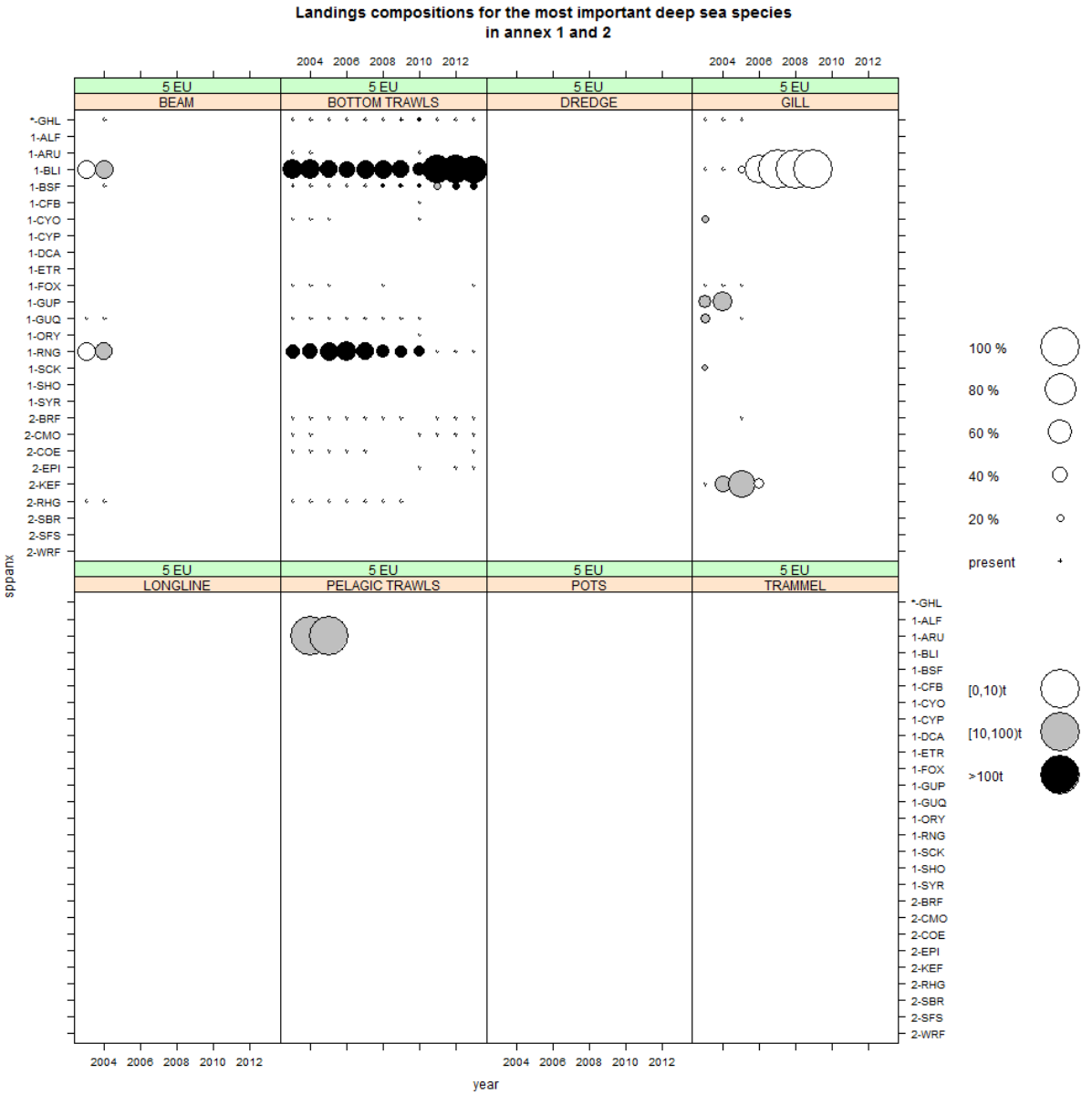


Figure 5.9.2.5.1. Landings of Annex 1&2 Deep Sea species (tonnes) 2003-2013 by gear ICES Area V EU. Size of circles represents relative contribution to landings, shading indicates quantity.

Western Waters 5 EU

Catch and catch composition

The majority of demersal species landings are associated with the deepwater fisheries taking place within the area.

The top five demersal species landed from V EU are detailed within Table 5.9.2.5.2. Anglerfish and *Sebastes* spp provided the highest landings historically. But these have begun to decrease in the last four years. Tusk landings, which had been quite stable through the time series, have begun to increase since 2012. Saithe landings have decreased since a peak in 2006 and are now quite low. Ling landings have been relatively stable since 2005.

Small quantities edible crab were landed from this area prior to 2006 (Table 5.9.2.5.3). Nothing has been landed since 2006.

No pelagic data has been supplied for this area.

Table 5.9.2.5.2. Top demersal species landed (tonnes) within Area V EU, 2003-2013. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
5 EU	USK	L	10	14	11	18	25	14	14	14	2	21	37
5 EU	RED	L	227	110	90	109	239	122	122	84	11	37	32
5 EU	ANF	L	50	252	341	207	171	272	270	3	6	6	16
5 EU	POK	L	62	36	75	93	72	22	22	5	4	17	8
5 EU	LIN	L	17	35	8	10	10	5	5	2	2	4	6

Table 5.9.2.5.3. Scallop and crab species by gear landed within Area V EU, 2003-2013. Values are landings in tonnes. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
5 EU	CRE	L	5	6	4	20							
5 EU	SCE	L	0										

Table 5.9.2.5.4. Top pelagic species landed (tonnes) within Area V EU, 2003-2013. The ranking is based according to the last year landings.

No data

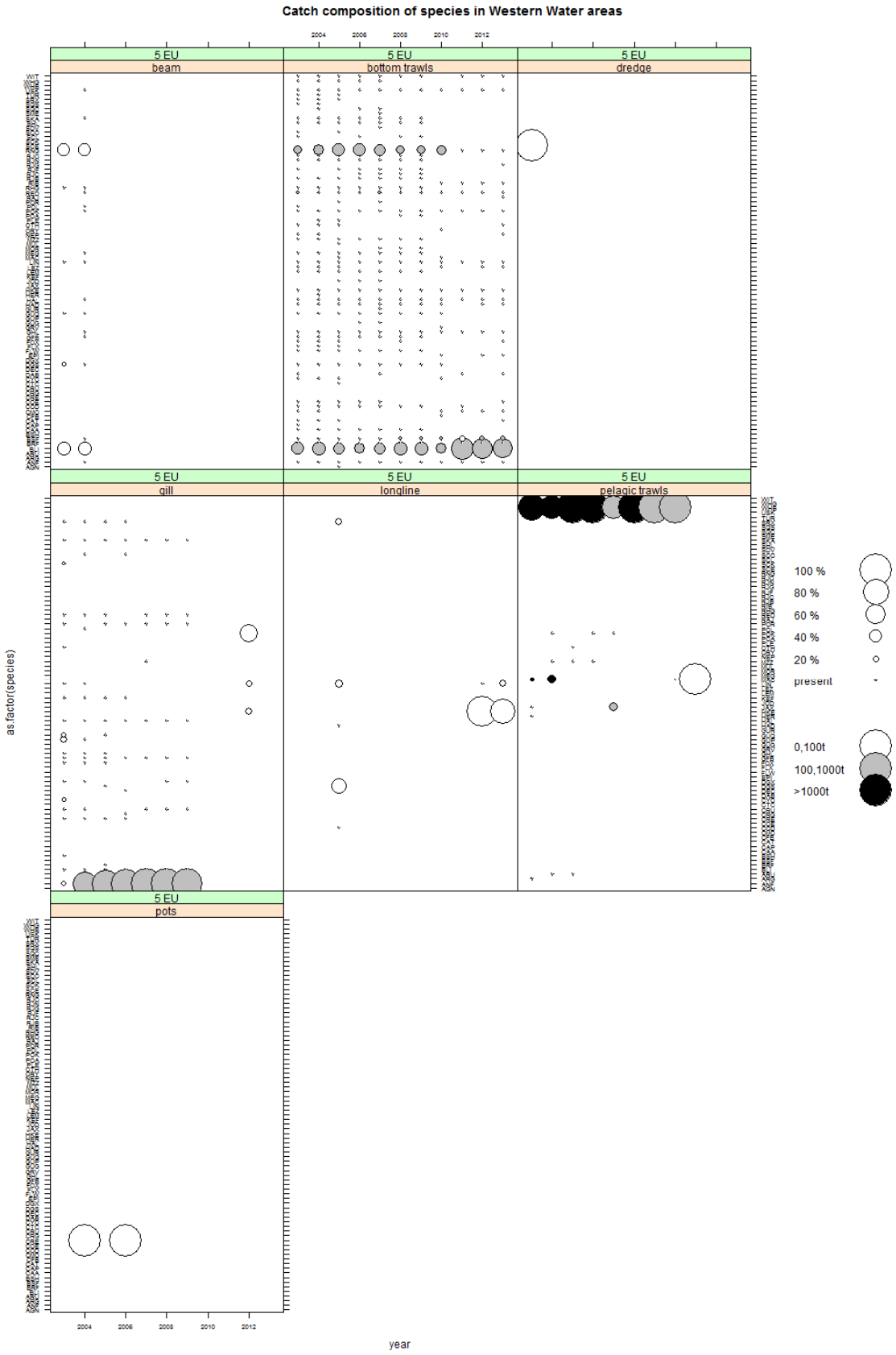


Figure 5.9.2.5.2. Landings composition by gear (countries combined) Western waters area V EU, 2003-2013. Size of circles represents relative contribution to landings, shading indicates quantity.

Deepwater V non-EU

Landings are solely provided by bottom trawls (Figure 5.9.2.5.3, Table 5.9.2.5.5). The main species landed are blue ling, Greenland halibut and Roundnose grenadier. However since 2005 there has been a significant reduction in the grenadier landings down to a very low level. From 2006 Blue ling provided the greatest landings however after reporting stable landings in the previous three years no landings have been provided since 2010. Greenland halibut landings increased from low levels in 2007 before peaking in 2010. Landings have declined again since.

France also recorded regular landings of black scabbard, but this ceased in 2010. Scottish landings of Portuguese dogfish ceased in 2005 but in 2010 France reported landings for both Portuguese dogfish and Black dogfish.

There is a possible issue of misclassified beam trawl data.

Table 5.9.2.5.5. Top 5 deepwater species landed in ICES Area V (non EU). The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
5 NON EU	GHL	L	174	77	49	51	4	187	404	1035	577	301	386
5 NON EU	RNG	L	385	380	226	128	93	44	45	21	2	1	1
5 NON EU	BLI	L	345	370	256	240	479	365	434	304			0

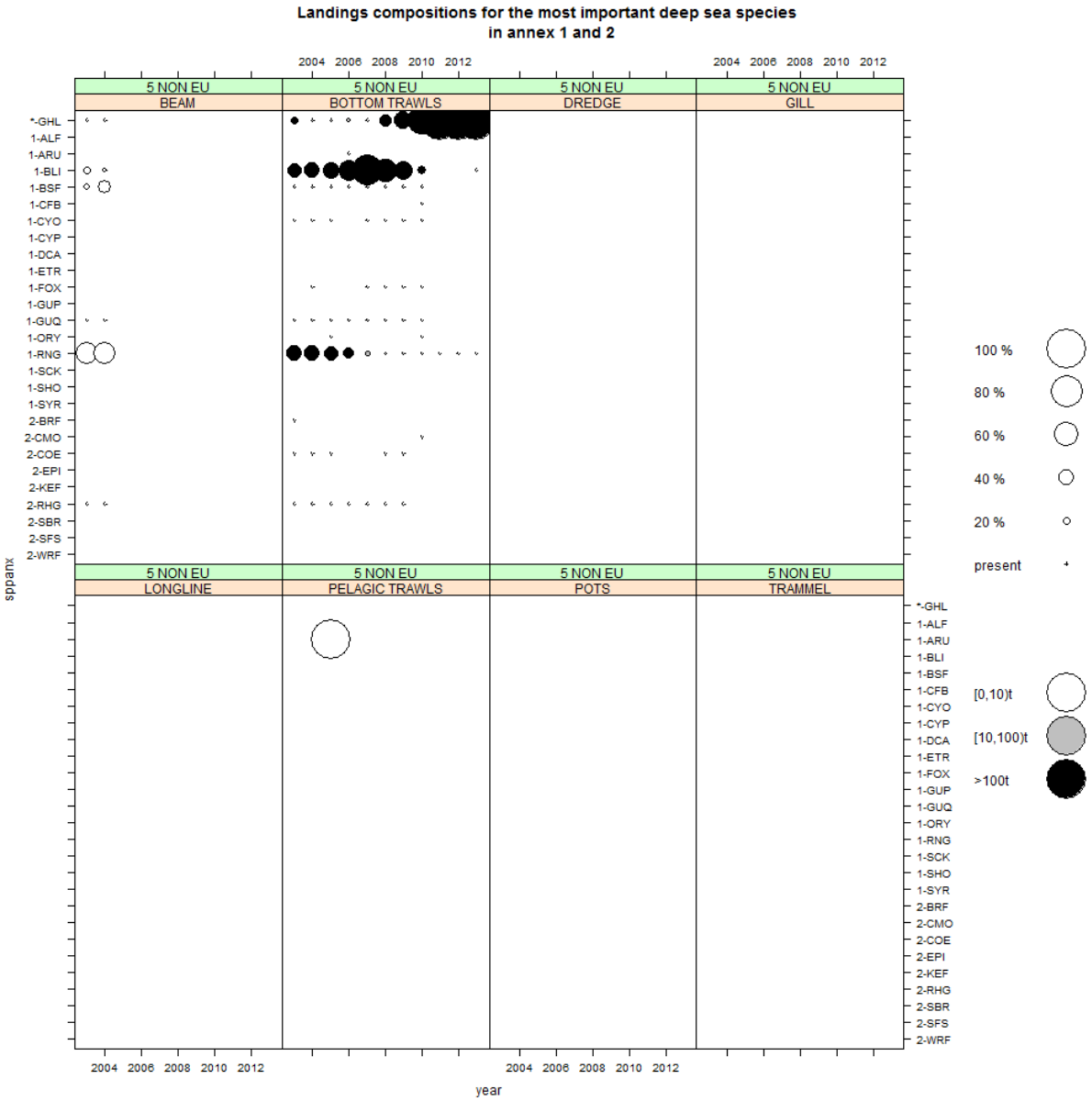


Figure 5.9.2.5.3. Landings of Annex 1&2 Deep Sea species (tonnes) 2003-2013 by gear ICES Area V (non EU). Size of circles represents relative contribution to landings, shading indicates quantity.

Western Waters V non-EU

The top five demersal species landed from V non-EU are detailed within Table 5.9.2.5.6. In the last three years only very small landings were reported. Data for 2013 was only supplied by Germany for Cod, Tusk and Wolffish. Historically Cod and Saithe would have provided the largest landings, but these have been in decline for quite a few years.

No landings of scallops or crabs were reported within this area.

No pelagic landings data is reported for this area

Table 5.9.2.5.6. Top demersal species landed (tonnes) within Area V non-EU, 2003-2013. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
5 NON EU	CAT	L	23	23	18	12	1	0	4	8	3	2	2
5 NON EU	COD	L	491	782	804	337	424	412	339	366	1	7	0
5 NON EU	USK	L	15	18	29	27	22	18	30	59	0		0
5 NON EU	RED	L	2273	1772	1553	964	335	6	14	87		23	
5 NON EU	POK	L	1260	1362	1556	1217	456	409	688	758	130		

Table 5.9.2.5.7. Scallop and crab species by gear landed within Area V non-EU, 2003-2013. Values are landings in tonnes. The ranking is based according to the last year landings.

No data

Table 5.9.2.5.8. Top pelagic species landed (tonnes) within Area V non-EU, 2003-2013. The ranking is based according to the last year landings.

No data

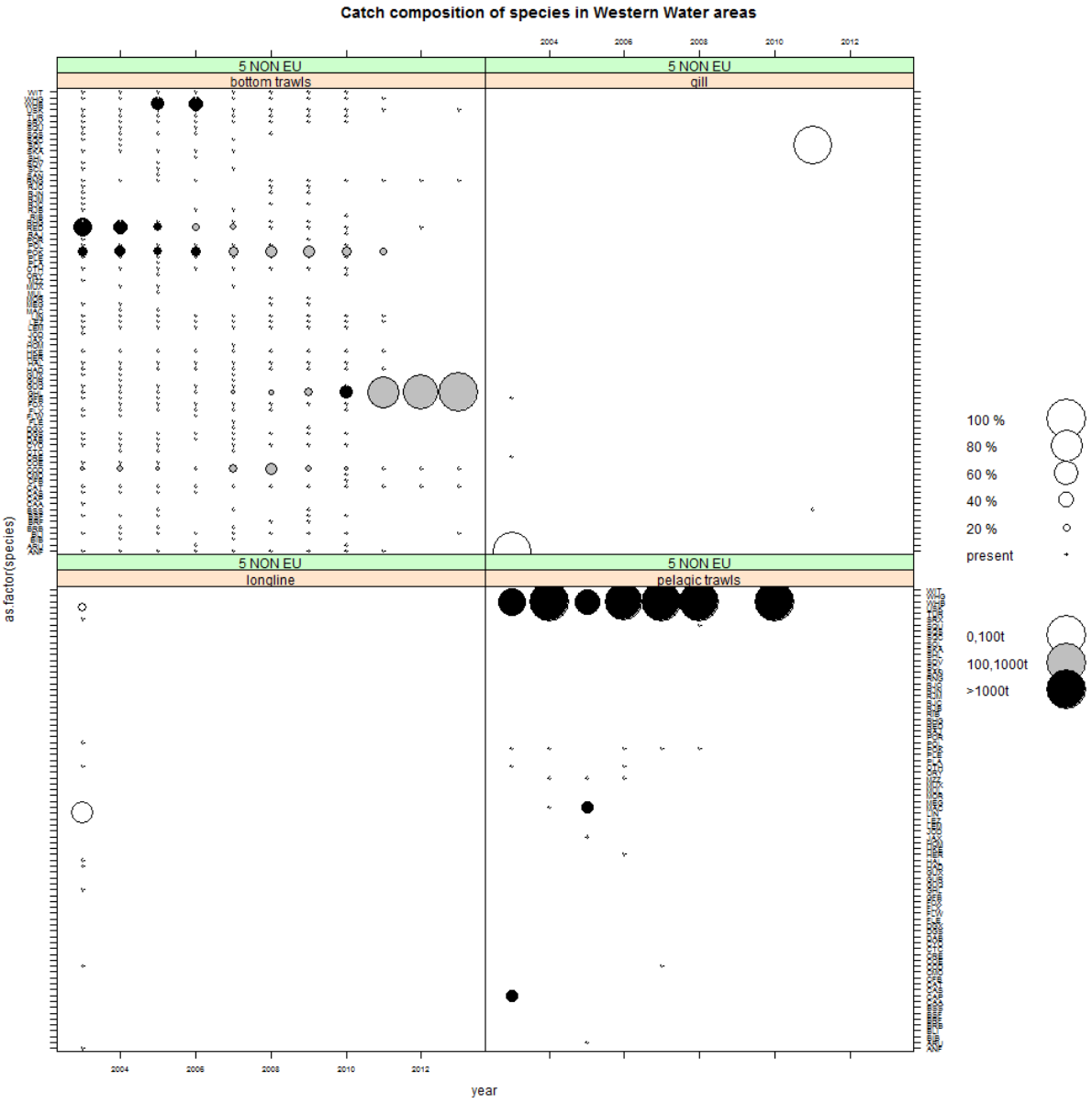


Figure 5.9.2.5.4. Landings composition by gear (countries combined) Western waters area V (non EU), 2003-2013. Size of circles represents relative contribution to landings, shading indicates quantity.

5.9.2.6 Catches in ICES area VI by fisheries and Member States

Deepwater VI EU

Table 5.9.2.6.1 shows the top 5 deepwater species landed, and Figure 5.9.2.6.1 shows aggregate catches by gear in VI (EU).

There is a mixed bottom trawl fishery targeting roundnose grenadier, blue ling and black scabbard. It is conducted mainly by France with small landings by Scotland. Roundnose grenadier landings were highest in 2003 and had been in slow decline up to 2010, but seem to have stabilised since. Black scabbard landings were reasonably stable up to 2009, before declining in 2010 and 2011. Landings have been increasing again in the last two years. Blue ling landings were stable until 2006, but then also began declining.

Pelagic trawls, mainly Dutch, are targeting greater argentine. Landings decreased to very low levels between 2008 and 2010, but have increased in recent years with 2012 being the highest in the time series.

In recent years longlines are primarily targeting Greater forkbeard. Landings had increased between 2010 and 2012, while in 2013 France, Spain and Scotland reported increased landings. There are also regular landings of blue mouth redfish and conger eel. Historically various species of shark were targeted but these landings have stopped since 2007.

In the early 2000s there were large landings of Portuguese dogfish by the UK using gill nets. Other sharks, such as leafscale gulper shark, were also targeted. These landings stopped in 2006. Scotland and England are currently using gill nets to target deep-water red crab, *Chaceon affinis*, with regular landings of 10 – 100 tonnes up to 2009. These landings decreased in 2010 and 2011, and none were recorded for 2012. This species was also fished using pots up until 2008.

Table 5.9.2.6.1. Top 5 deepwater species landed in ICES Area VI (EU). The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
6 EU	ARU	L	87	1204	186	216	195	0	36	27	1485	2318	2143
6 EU	BSF	L	3106	2859	2614	1813	2052	2386	2427	1801	1536	1613	2086
6 EU	BLI	L	2974	3288	2673	2565	2060	1717	1928	1450	1146	1031	1335
6 EU	RNG	L	5104	4652	2978	1950	1579	1440	1447	1309	876	1021	892
6 EU	FOX	L	547	313	180	156	176	120	287	189	230	251	746

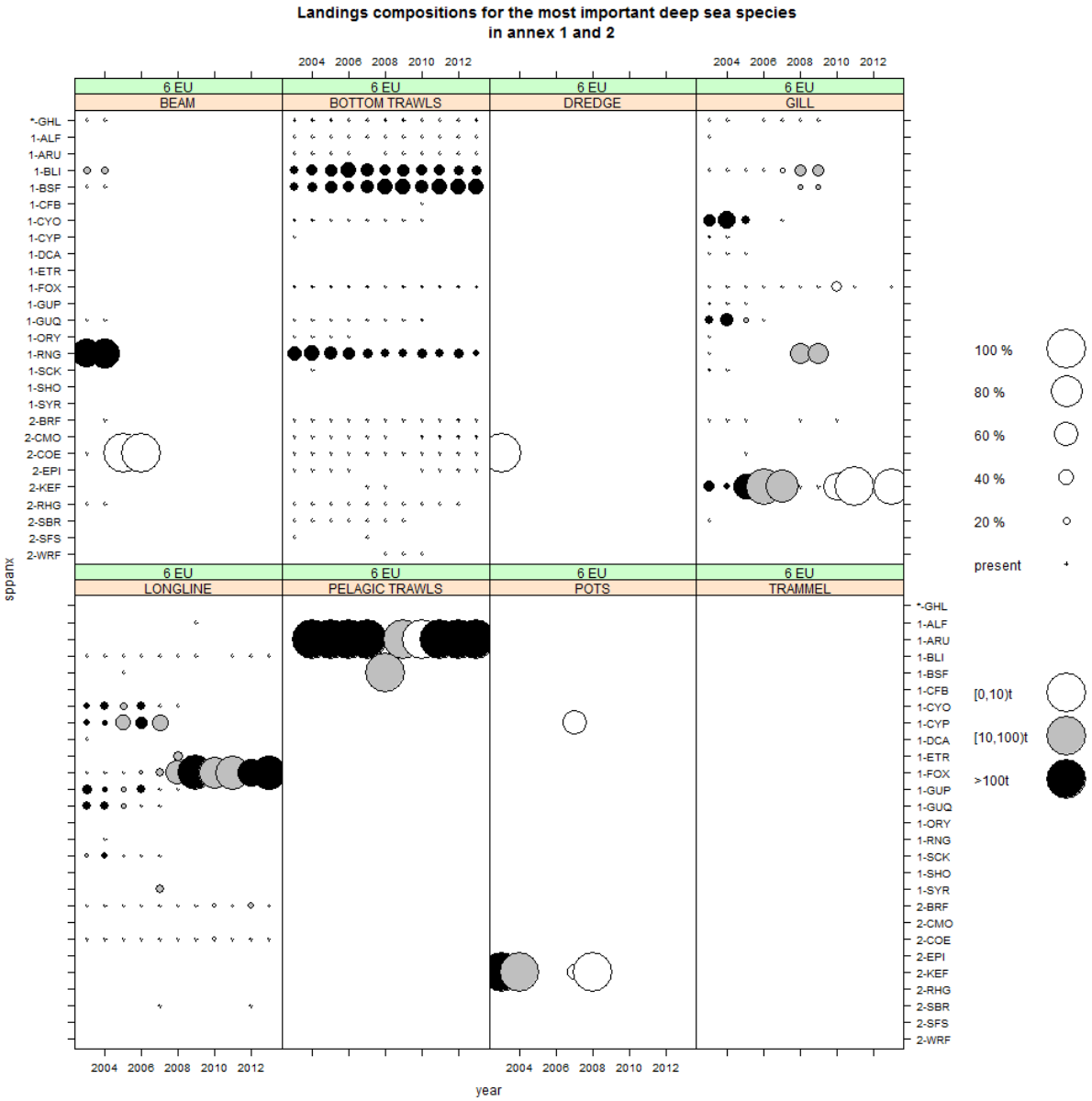


Figure 5.9.2.6.1. Landings of Annex 1&2 Deep Sea species (tonnes) 2003-2013 by gear in ICES Area VI (EU). Size of circles represents relative contribution to landings, shading indicates quantity.

Table 5.9.2.6.2 Top 5 deepwater species discarded (tonnes) in Area VI (EU).

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
6 EU	ARU	D										18	26
6 EU	BSF	D											
6 EU	BLI	D											
6 EU	RNG	D										0	
6 EU	FOX	D									1	13	802

Western Waters VI EU

There are a variety of different fisheries taking place within area VI EU by a number of different gears, as seen in Figure 5.9.2.6.2. The top five demersal species landed from VI EU are detailed within Table 5.9.2.6.3. *Nephrops* has both the greatest landings throughout the period, and although a slight decline is seen in most recent years landings appear to have stabilised. Saithe and Haddock

show fluctuations without trend. Hake landings show a steady increase over the whole period, as do those of anglerfish until 2010 when landings were reduced. Anglerfish landings increased again in 2011 with landings for 2013 being the highest in the time period.

Pots contribute large quantities of edible crabs, landings of which increased until 2007, Table 5.9.2.6.4. Since then they have fluctuated. Landings dropped in 2008 and 2009, increased again in 2010 and 2011, before suffering another drop in 2012 and 2013. Large scallop landings occur from dredging. These landings decreased between 2003 and 2007 before stabilising. Landings have increased again in the last two years. Only minor landings of spider crab have occurred between 2006 and 2010, from pots and traps.

Mackerel have the highest landings among the pelagic species (Table 5.9.2.6.5). These landings have fluctuated greatly through the time series. Horse mackerel landings have doubled in 2011 and 2012 compared to previous landings. Landings of Blue whiting have declined rapidly after a peak in 2006 and reached their lowest level in 2011, however they showed an increase again in the last two years. Herring landings were reasonably stable until 2007, before decreasing, but have stabilised at a lower level over the last four years. Occasional landings of Albacore tuna have been made by Ireland, Spain and Scotland

Table 5.9.2.6.3. Top demersal species landed (tonnes) within Area VI EU, 2003-2013. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
6 EU	NEP	L	8951	8567	8705	11463	13990	13044	10733	10232	11222	12555	11127
6 EU	HKE	L	636	1148	2012	2335	3547	3856	5236	6026	6554	8737	9116
6 EU	POK	L	5147	4720	6518	9595	6720	6555	7355	5602	6703	7228	7626
6 EU	HAD	L	6949	3750	3753	6221	5623	5259	5762	5130	3182	5592	5275
6 EU	ANF	L	2648	2749	3511	3374	4163	4512	4918	3245	4421	4237	5091

Table 5.9.2.6.4. Scallop and crab species by gear landed within Area VI EU, 2003-2013. Values are landings in tonnes. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
6 EU	CRE	L	7940	8176	8138	8670	9343	8105	7421	9558	9884	8352	8220
6 EU	SCE	L	5382	4663	4043	3090	2766	3606	3189	3121	3252	4979	4175
6 EU	SCR	L				0	5	2	4	0			

Table 5.9.2.6.5. Top pelagic species landed (tonnes) within Area VI EU, 2003-2013. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
6 EU	MAC	L	158655	132107	118649	105611	110237	94758	139443	104248	150585	114197	123007
6 EU	WHB	L	54401	157763	182544	202858	102721	61418	34394	40723	8755	28593	50687
6 EU	JAX	L	23318	21452	20318	13051	24691	28763	19035	23494	36971	44279	41668
6 EU	HER	L	39423	40483	41506	46885	44291	35093	30059	26917	22506	23652	24639
6 EU	ALB	L				1			33				0

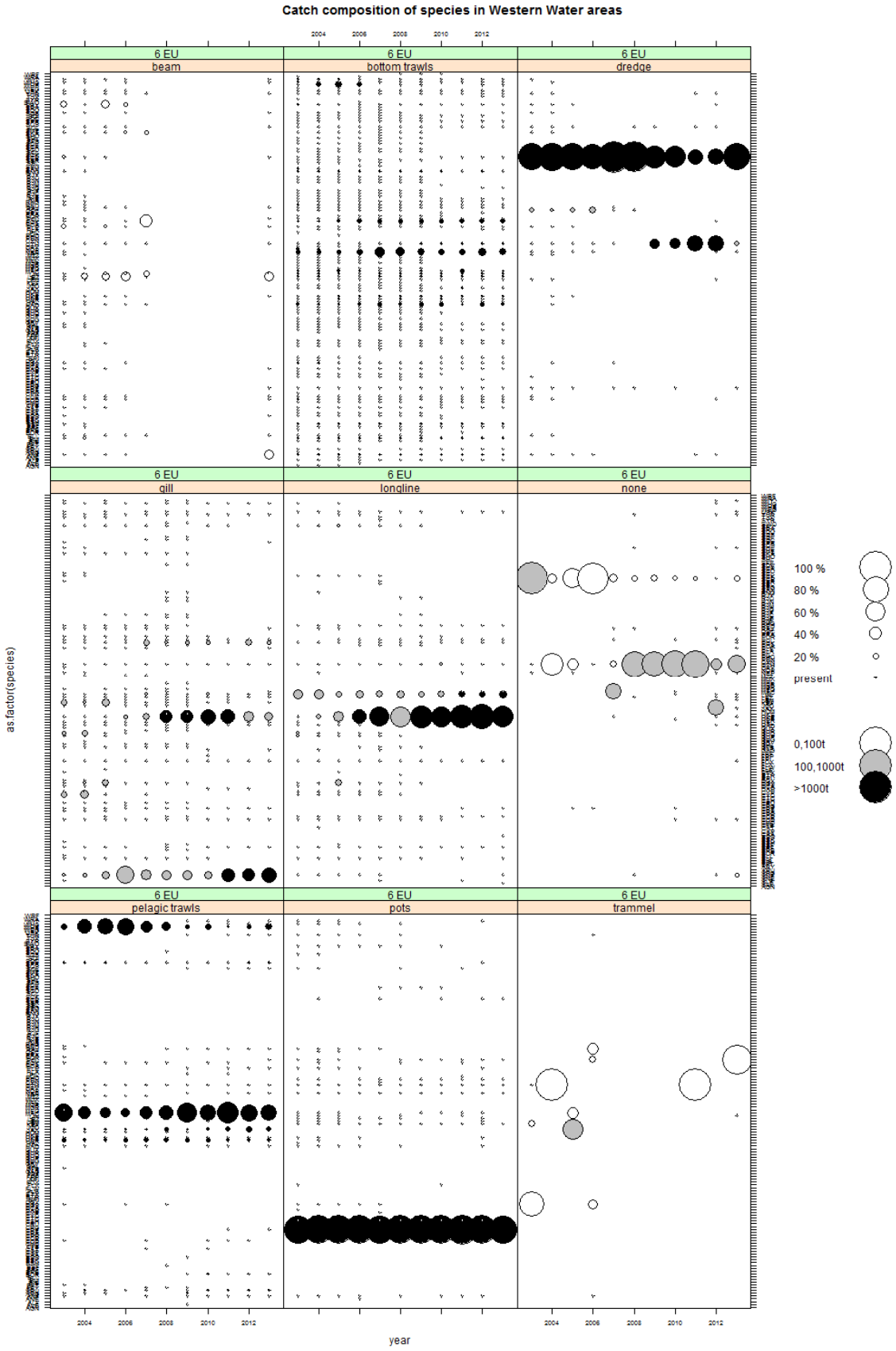


Figure 5.9.2.6.2 Landings composition by gear (countries combined) Western waters area VI EU, 2003-2013. Size of circles represents relative contribution to landings, shading indicates quantity.

Deepwater VI non-EU

Landings from this area were almost non-existent between 2007 and 2011. Since 2012 Spain has provided the majority of the landings data with France providing some for Black scabbard in 2013. Otter trawls in VI non EU has been the main gear used, (Figure 5.9.2.6.3).

Gill net landings, which were targeting deep-water red crab, Portuguese dogfish and greater forkbeard, ceased in 2007.

Table 5.9.2.6.6. Top 5 deepwater species landed in ICES Area VI (non EU). The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
6 NON EU	RNG	L	1	0	88	34						258	483
6 NON EU	ALC	L			61	82						335	342
6 NON EU	SFS	L										655	200
6 NON EU	BSF	L	1	1	73	3						68	61
6 NON EU	CMO	L			4	10	3					9	49

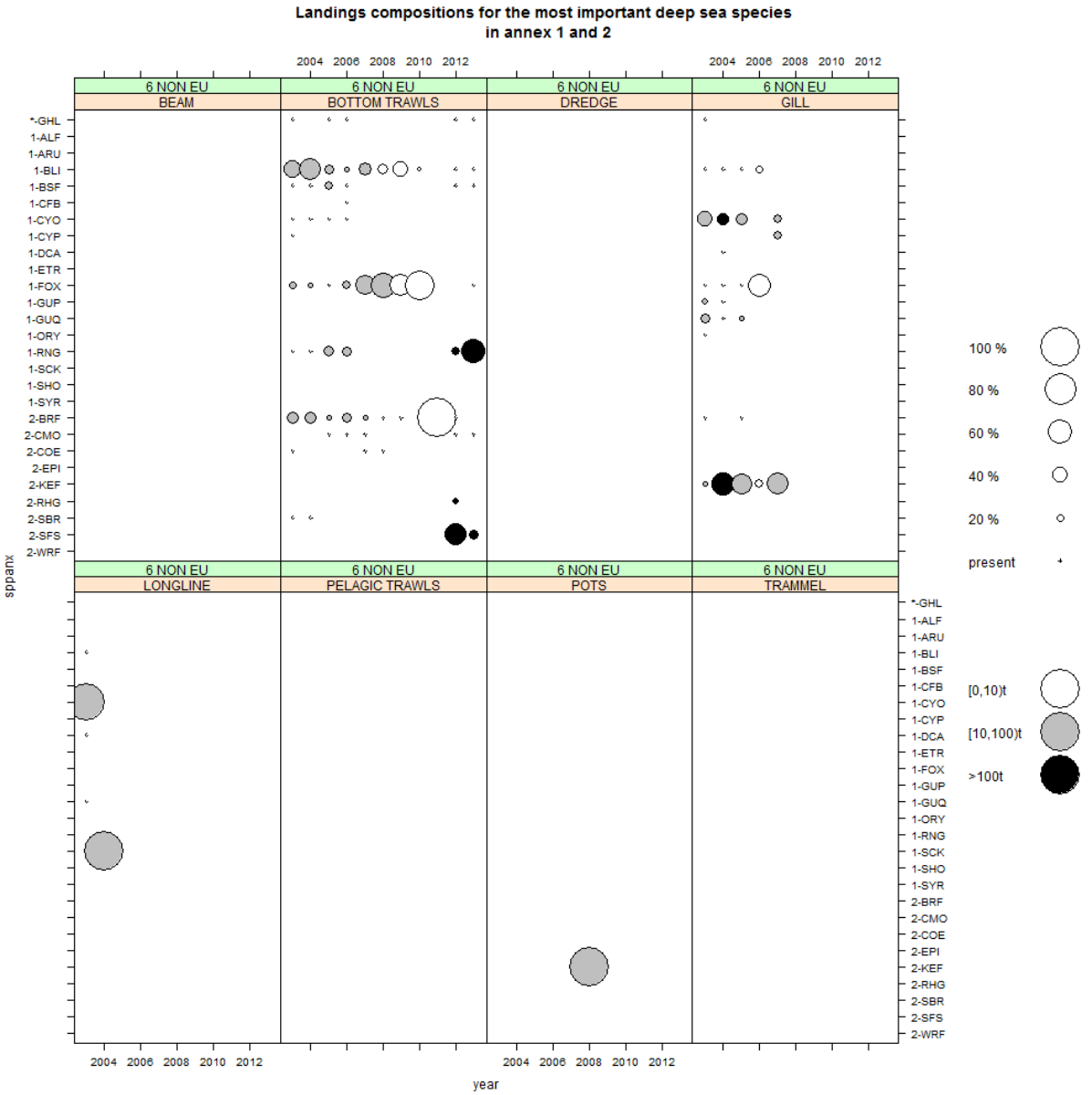


Figure 5.9.2.6.3. Landings of Annex 1&2 Deep Sea species (tonnes) 2003-2013 by gear ICES Area VI (non EU). Size of circles represents relative contribution to landings, shading indicates quantity.

Western Waters VI non-EU

The top five demersal species landed from VI non-EU are detailed within Table 5.9.2.6.7.In recent years Haddock has been the most important species. Landings reached a peak in 2010 but decreased rapidly in subsequent years. Landings for 2013 show an increase on 2012. Anglerfish are the next most important species although once again landings are on the decrease in recent years. Ling, *Lepidorhombus* spp. contribute small landings, and Ray spp. were reported for the first time in 2013.

Crab landings in this area have not been reported since 2004 (Table 5.9.2.6.8).

This is not an area of activity for pelagic fishing. Blue whiting landings were reported in 2003, but since then there have been no pelagic landings (Table 5.9.2.6.9).

Table 5.9.2.6.7. Top demersal species landed (tonnes) within Area VI non-EU, 2003-2013. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
6 NON EU	HAD	L	281	18	4	4	67	21	333	849	373	25	107
6 NON EU	ANF	L	52	126	217	94	172	20	42	126	104	37	80
6 NON EU	LIN	L	24	48	9	9	19	6	15	61	32	6	24
6 NON EU	LEZ	L	124	90	32	28	30	14	5	10	3	13	19
6 NON EU	RAJ	L											12

Table 5.9.2.6.8. Scallop and crab species by gear landed within Area VI non-EU, 2003-2013. Values are landings in tonnes. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
6 NON EU	CRE	L	1	5									

Table 5.9.2.6.9. Top pelagic species landed (tonnes) within Area VI non-EU, 2003-2013. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
6 NON EU	WHB	L	8198									

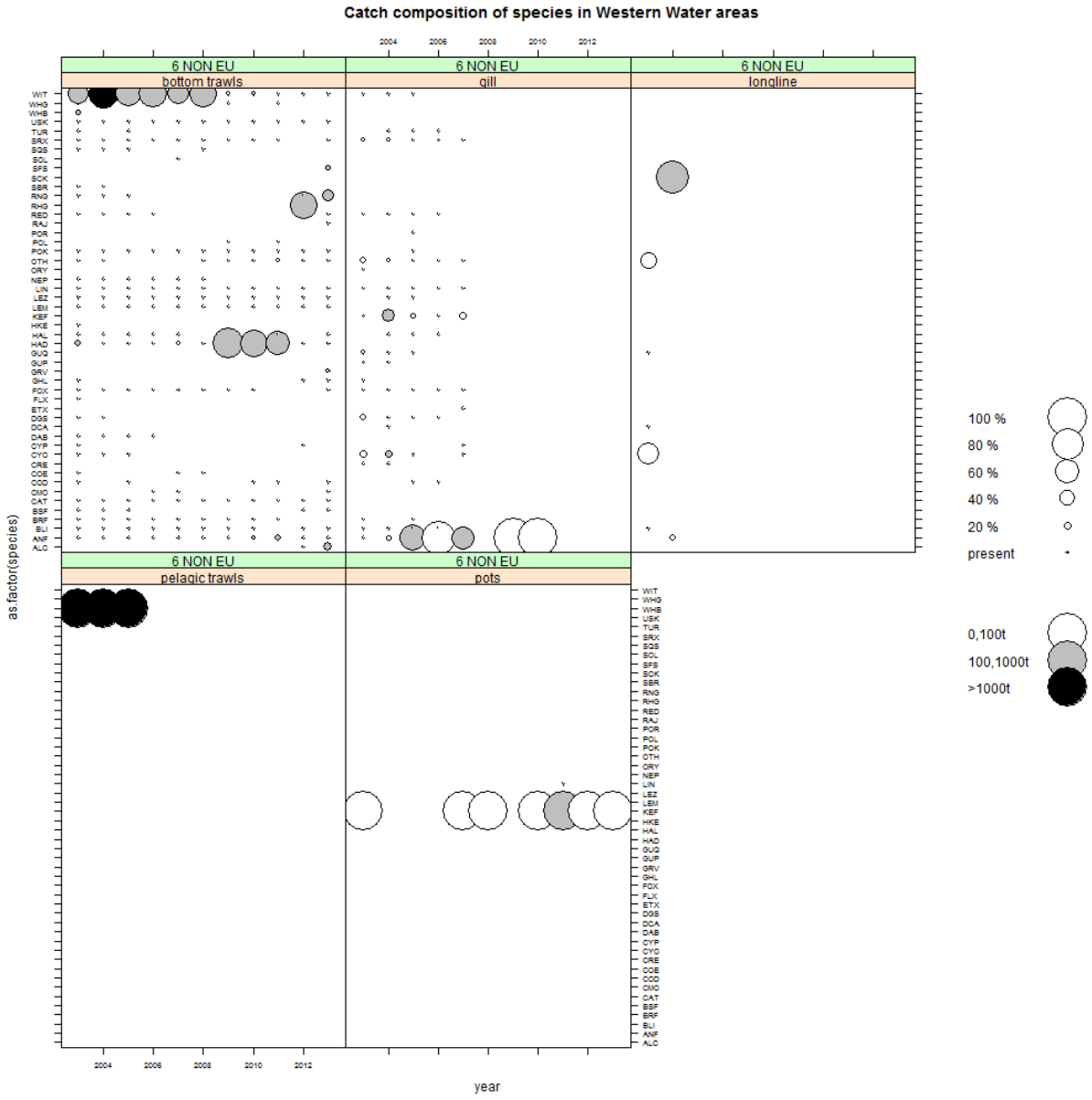


Figure 5.9.2.6.4 Landings composition by gear (countries combined) Western waters area VI non EU, 2003-2013. Size of circles represents relative contribution to landings, shading indicates quantity.

5.9.2.7 Catches in ICES area VII excluding VIId by fisheries and Member States

Deepwater VII EU, no VIId

Landings of conger eel increased ten-fold in 2012, the majority being reported by Spain using longlines and bottom trawl. In 2013 however these landings reduced by over 50%. Spain also reported large landings for blue mouth redfish, using the same two gears.

Greater Forkbeard landings, which had been in decline until 2012, showed an increase in 2013. Black scabbard landings were reasonably stable while landings of Blue ling showed an increase in 2013.

This fishery also reports occasional catches for Roughhead grenadier, Portuguese dogfish and cardinal fish. The cardinal fish catches were probably connected with the historic orange roughy fishery. Reported landings of the orange roughy fishery ceased in 2005. Reported landings of Portuguese dogfish ceased after 2007 but were reported again in 2010.

The beam trawl fishery is conducted primarily by England. The main landings are conger eel but landings have begun to decrease in recent years. Small amounts of greater forkbeard are also landed.

Gill nets targeted sharks early on but the only shark species with reported landings after 2006 is Portuguese dogfish. Landings of deep-water red crab decreased after 2007 but have increased again since 2010.

Table 5.9.2.7.1. Top 5 deepwater species landed in ICES Area VII no VIId (EU). The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
7 EU NO 7D	BRF	L	47	43	69	72	58	61	70	53	38	721	460
7 EU NO 7D	COE	L	677	571	496	381	295	215	149	137	105	1048	456
7 EU NO 7D	FOX	L	667	546	481	307	194	144	112	74	54	25	360
7 EU NO 7D	BSF	L	344	375	198	359	199	124	126	85	175	148	202
7 EU NO 7D	BLI	L	59	43	31	27	28	21	20	12	21	35	62

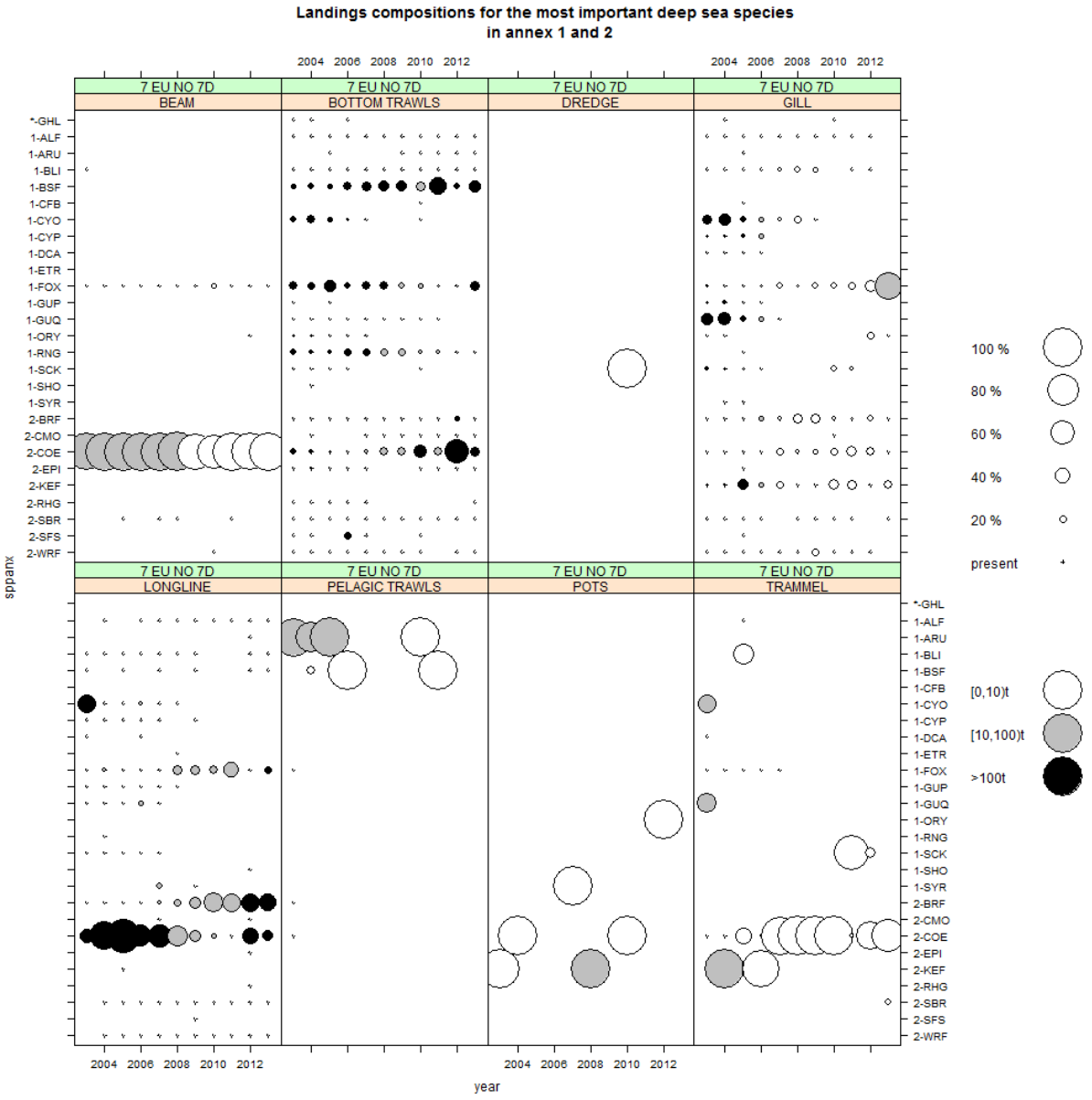


Figure 5.9.2.7.1. Landings of Annex 1&2 Deep Sea species (tonnes) 2003-2013 by gear ICES Area VII EU no VIId

Western Waters VII EU, no VIId

The top five demersal species landed from this area are detailed within Table 5.9.2.7.2 with more general composition given in Figure 5.9.2.7.2. Hake landings were quite stable up to 2009. Since then they have increased year on year. Anglerfish landings were quite stable between 2003 and 2009, before dropping in 2010. Landings started increasing again in 2011 and 2013 produced the highest figure of the time series. Haddock landings were also stable up to 2009, increased between 2010 and 2012, but decreased again in 2013. *Nephrops* landings increased between 2006 and 2009 but have returned to a lower, stable, level since. Landings of *Lepidorhombus* spp were stable up to 2009, and have increased since.

Crab and Scallop landings from the area are detailed in Table 5.9.2.7.3. This shows that the greatest landings of scallops by far originate from dredges. Landings have been relatively stable since 2004.

Beam trawls also land scallops, although at a much lower level. Edible crabs are landed by a wide variety of gears, with pots yielding the greatest landings. 2012 had the highest landings in the time series at 9300t. Landings for 2013 are quite similar. Spider crabs are mainly targeted by gill nets. Landings have been relatively stable throughout the time series.

Horse mackerel tops the pelagic species landings. Having reached a peak in 2012 landings have fluctuated since, (Table 5.9.2.7.4). Boarfish landings were first reported for 2007 and increased dramatically to 2010. Landings dropped sharply in 2011, before increasing again in 2012. Landings dropped slightly again in 2013. Mackerel landings fluctuated between 2003 and 2005, before dropping to a low point in 2006. Landings subsequently increased, reaching a peak in 2010, but they have fluctuated at lower levels since. Blue whiting landings peaked in 2007 before declining to a low point in 2011. They have begun to increase again since then. Albacore tuna landings fluctuated prior to 2011.Since then they have increased greatly, with 2013 being the highest in the time series. Bluefin tuna and Swordfish landings have also begun to increase since 2010, but at much lower levels. Occasional landings of Bigeye tuna are also reported.

Table 5.9.2.7.2. Top demersal species landed (tonnes) within Area VII EU no VIId, 2003-2013. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
7 EU NO 7D	HKE	L	4549	4737	4769	4516	4756	4493	4107	7591	10416	19551	29202
7 EU NO 7D	ANF	L	15096	16804	16724	16082	18051	15637	16276	12186	17878	21302	26507
7 EU NO 7D	LEZ	L	4049	3987	4061	3388	3426	3298	4403	7209	6698	9551	14800
7 EU NO 7D	HAD	L	6334	7097	5567	4714	6056	6385	7875	9230	12986	16391	12065
7 EU NO 7D	NEP	L	12128	12070	12913	12732	16229	17696	16264	9985	9716	12353	10597

Table 5.9.2.7.3. Scallop and crab species by gear landed within Area VII EU no VIId, 2003-2013. Values are landings in tonnes. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
7 EU NO 7D	CRE	L	7539	7183	6196	6172	8319	6953	7093	8181	8735	9327	9240
7 EU NO 7D	SCE	L	14687	20450	20254	17961	19587	19738	22411	18750	19624	21252	20351
7 EU NO 7D	SCR	L	2463	3235	2868	2502	2804	2535	2519	2031	2145	2169	2295

Table 5.9.2.7.4. Top pelagic species landed (tonnes) within Area VII EU no VIId, 2003-2013. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
7 EU NO 7D	JAX	L	71102	71941	66035	65347	48940	62943	90274	120234	95484	107184	85170
7 EU NO 7D	BOR	L					772	1387	83055	136586	28073	78060	66520
7 EU NO 7D	WHB	L	35526	38972	121861	114443	148261	120995	34645	33925	2930	20353	44007
7 EU NO 7D	MAC	L	55894	64634	51936	29222	41668	47299	65508	81559	37240	49540	34637
7 EU NO 7D	ALB	L	1832	996	2207	210	1597	2245	2536	968	5548	5366	7706
7 EU NO 7D	BFT	L	49	13	24	0	7	3	3	4	8	11	120
7 EU NO 7D	SWO	L	63	26	30	3	10	5	4	4	7	15	21
7 EU NO 7D	BET	L			0		3			0	2	0	0

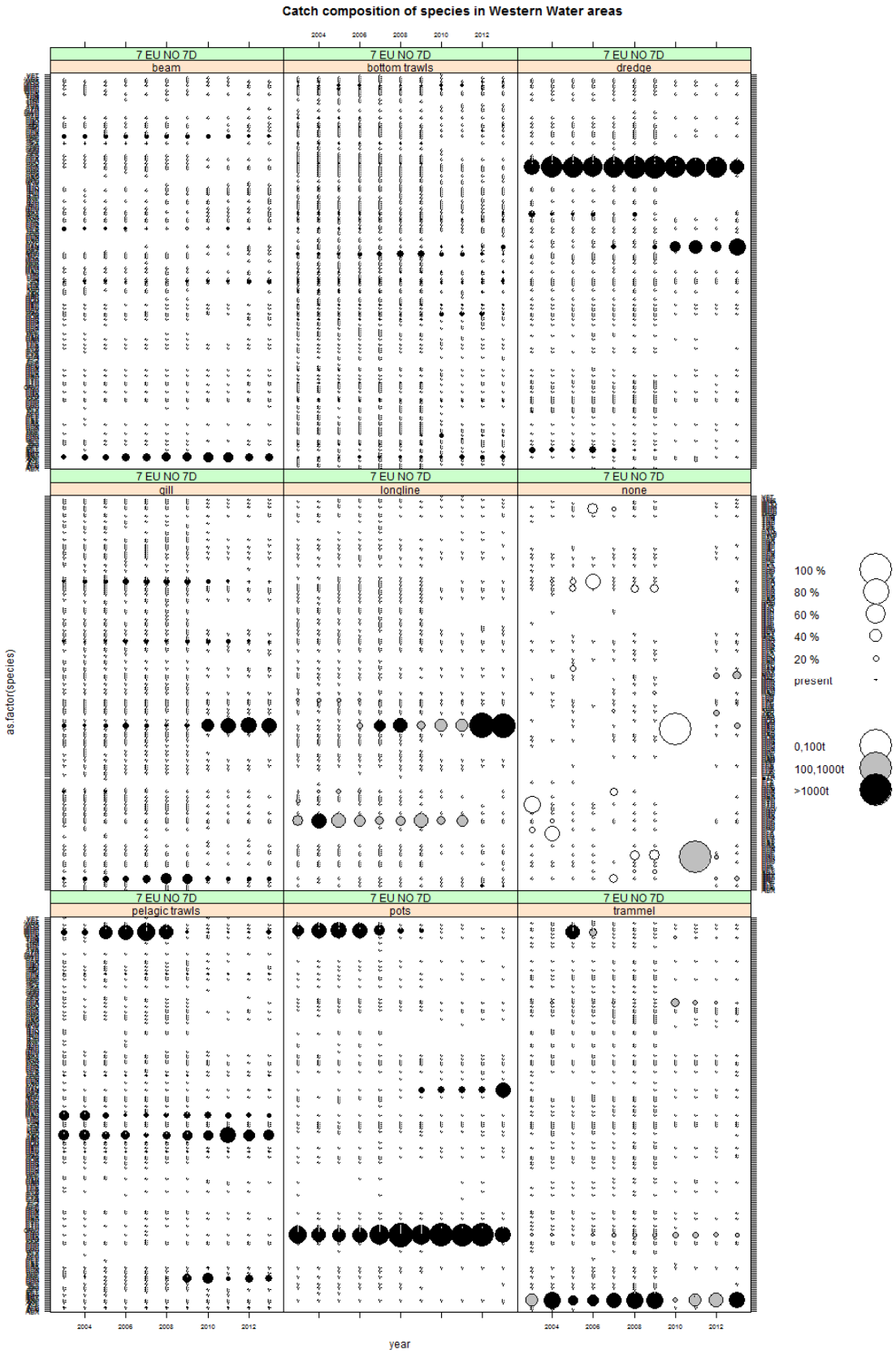


Figure 5.9.2.7.2. Landings composition by gear (countries combined) Western waters area VII EU excluding VIId, 2003-2013. Size of circles represents relative contribution to landings, shading indicates quantity.

Deepwater VII non-EU

Only sporadic landings are reported for this region, (Figure 5.9.2.7.5). In 2013 Spain reported less than 2t of Beryx spp, and less than 1t of Greater Forkbeard and Bluemouth redfish

Table 5.9.2.7.5. Top 5 deepwater species landed in ICES Area VII non EU (EU). The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
7 NON EU	ALF	L											1
7 NON EU	FOX	L	0	0									0
7 NON EU	BRF	L		0								0	0

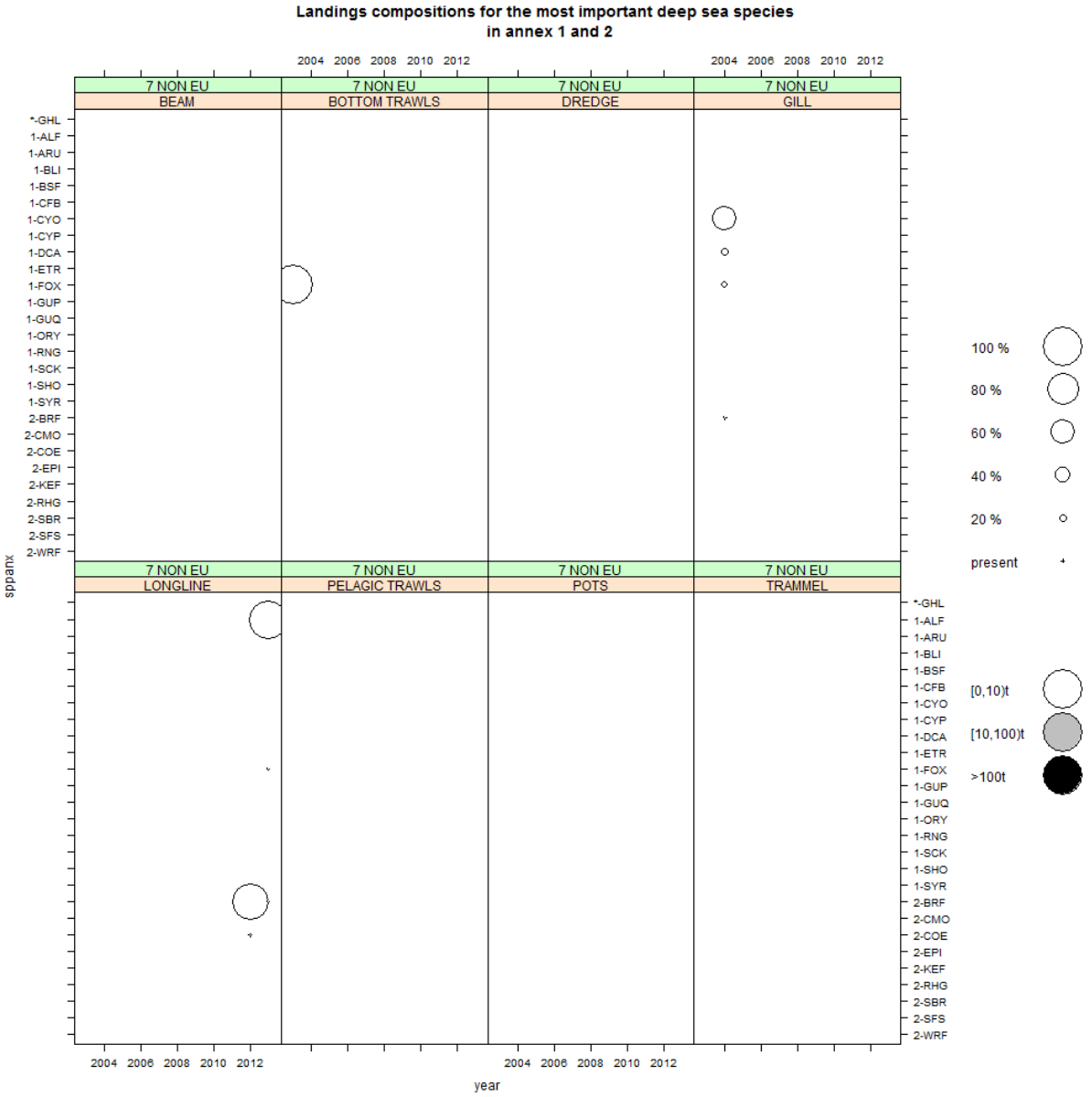


Figure 5.9.2.7.3. Landings of Annex 1&2 Deep Sea species (tonnes) 2003-2013 by gear ICES Area VII (non EU)

Western Waters VII non-EU

Very few demersal species are landed from this area (Table 5.9.2.7.6). Small amounts of Hake, Anglerfish and Megrim species landings have been reported since 2010. For 2012 small landings of *Nephrops* and Witch were reported.

There are no reported landings of scallops or crabs within this area.

Blue whiting historically is the only pelagic species with reported landings from the area (Table 5.9.2.7.7). In recent years landings data has only been reported for 2009, 2010 and 2013, at low levels. Albacore tuna landings were first reported in 2010, with large landings reported for 2012 and 2013. Small landings of Swordfish have been reported since 2010.

Table 5.9.2.7.6. Top demersal species landed (tonnes) within Area VII non-EU, 2003-2013. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
7 NON EU	HKE	L		0						1	4	9	5
7 NON EU	ANF	L	0	0						0	0	4	0
7 NON EU	LEZ	L		0						0		4	0
7 NON EU	NEP	L										1	
7 NON EU	WIT	L								0		1	

Table 5.9.2.7.6. Scallop and crab species by gear landed within Area VII non-EU, 2003-2013. Values are landings in tonnes. The ranking is based according to the last year landings.

No reported landings.

Table 5.9.2.7.7. Top pelagic species landed (tonnes) within Area VII non-EU, 2003-2013. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
7 NON EU	WHB	L	11770	2834	5288				1712	689			768
7 NON EU	ALB	L								157	46	805	958
7 NON EU	SWO	L								2		1	0

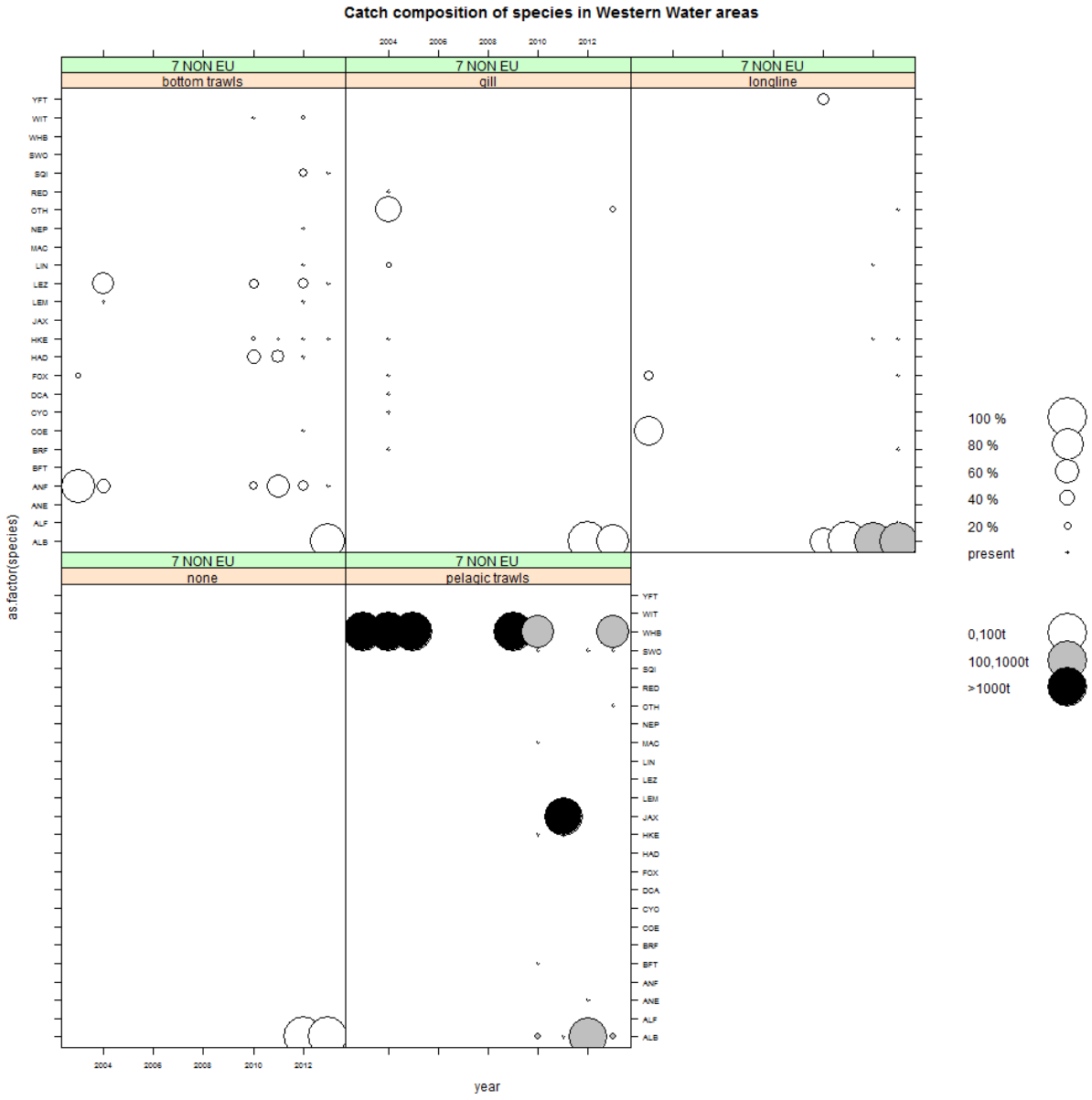


Figure 5.9.2.7.4. Landings composition by gear (countries combined) Western waters area VII non-EU, 2003-2013. Size of circles represents relative contribution to landings, shading indicates quantity.

5.9.2.8 Catches in ICES area VIId by fisheries and Member States

Deepwater VIId

The catch data provided are very sparse. The most recent data shows small landings of Conger eel, less than 1t in each of the last four years, landed by France and the UK.

Table 5.9.2.8.1. Top 5 deepwater species landed (tonnes) in ICES Area VIId. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
7D	COE	L	0	0	0		0	7	6	0	0	0	0

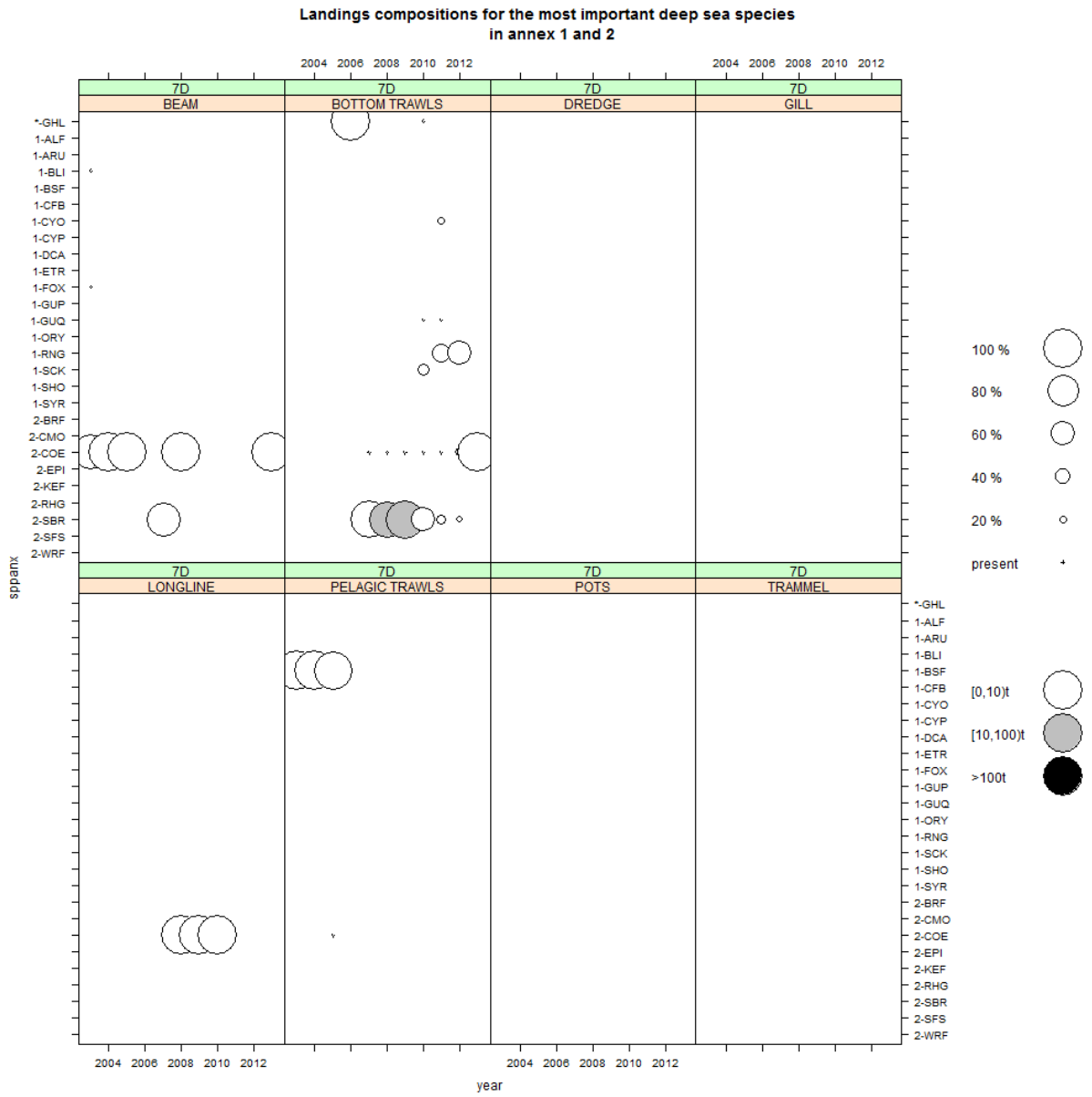


Figure 5.9.2.8.1. Landings of Annex 1&2 Deep Sea species (tonnes) 2003-2013 by gear ICES Area VIId.

Western Waters

There are a number of different fisheries taking place in this area by a number of different gears showing varying species compositions as seen in Figure 5.9.2.8.2. In relation to the top demersal species (Table 5.9.2.8.2) whiting contributes the greatest quantities. Having been in decline for a number of years landings have increased in 2010 and 2011 before decreasing again in 2012. There was a small increase in landings again in 2013. Sole and plaice are currently landed in similar quantities following a decline, in 2010, in sole landings. Landings of Dab and Seabass have begun to increase in recent years.

Table 5.9.2.8.3 details scallop and crab landings from the area, showing large and increasing landings volumes of scallops made by dredgers. There is a small pot fishery for edible crabs, after a dip in 2008

and 2009 landings have begun to increase again. Pot fishing for spider crabs was in decline up to 2009, but landings have increased again in the last three years.

Pelagic landings of Herring landings were at high levels between 2003 and 2006 before declining. Landings increased again in 2012 and remained high in 2013. Horse mackerel landings increased to a peak in 2010 but have been in decline since (Table 5.9.2.8.4). Mackerel landings had been in decline up to 2007 but have stabilised since. Pilchard landings stopped in 2009 before resuming in 2012. Landings are still small for 2013. Small amounts of Swordfish and various tuna species have been landed since 2011.

Table 5.9.2.8.2. Top demersal species landed (tonnes) within Area VIId, 2003-2013. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
7D	WHG	L	6512	4951	4616	3625	3166	4053	3992	5493	6295	3342	4033
7D	SOL	L	5487	4878	4019	4141	4413	3950	4011	2692	3222	3080	3422
7D	PLE	L	3880	3624	3088	2800	3155	3000	2682	2849	3130	2831	3185
7D	DAB	L	1041	976	933	965	933	866	865	982	1229	999	1219
7D	BSS	L	1008	1078	1187	864	1169	1035	985	893	870	1058	1176

Table 5.9.2.8.3. Scallop and crab species by gear landed (tonnes) within Area VIId, 2003-2013. Values are landings in tonnes. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
7D	CRE	L	709	787	820	775	521	508	494	588	681	976	917
7D	SCE	L	10884	13609	16780	15649	14459	14589	18313	19153	22045	19424	19601
7D	SCR	L	137	88	101	71	74	18	16	85	96	99	82

Table 5.9.2.8.4. Top pelagic species landed (tonnes) within Area VIId, 2003-2013. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
7D	HER	L	48510	48229	59225	44592	31254	22526	20063	18679	18306	34357	35956
7D	JAX	L	10644	12173	7752	8104	15822	12741	18930	21181	19189	19382	17381
7D	MAC	L	10358	9471	7016	7018	4818	5543	5545	4045	7679	4907	4935
7D	PIL	L	13206	8742	12741	14132	8709	9471	8513			50	2408
7D	SWO	L					0						1
7D	BET	L										0	0
7D	ALB	L				0					31	2	0
7D	BFT	L								0			0

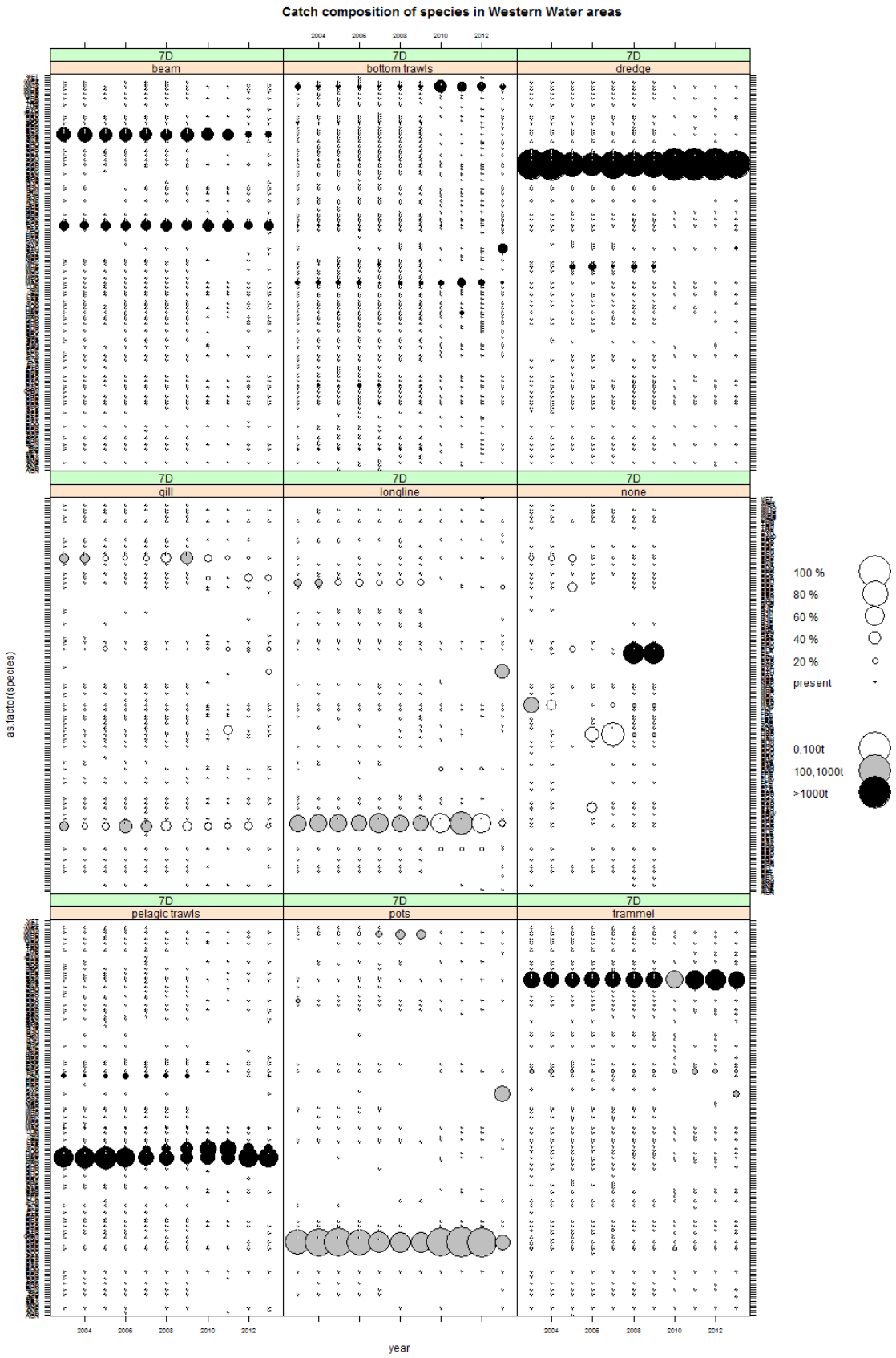


Figure 5.9.2.8.2 Landings composition by gear (countries combined) Western waters area VIId, 2003-2013. Size of circles represents relative contribution to landings, shading indicates quantity.

5.9.2.9 Catches in the Biologically Sensitive Area by fisheries and Member States

Western Waters

As in the wider area VII, a variety of fisheries occur within the BSA through the use of different gears. Beam trawling targets anglerfish, gillnetting for hake, dredging for scallops and potting for edible crab. The general species composition by gear is given in Figure 5.9.2.9.1.

After being stable through the time series landings of Hake have begun to increase since 2011, with 2013 being the highest in the time series. They now produce the highest landings for the area. Landings of Megrim were stable to 2008 but have been increasing since. There was a large increase in landings in 2013. Landings of Anglerfish suffered a drop in 2010 but have been increasing Haddock have fluctuated around relatively stable levels over the period, but again showed an increase in 2012, before decreasing again in 2013. Whiting were quite stable up to 2009 when landings began to increase slowly.

Table 5.9.2.9.2 details scallop and crab landings from the BSA. In this area scallop and crab landings are far lower than the wider VII EU area. Scallops from dredging were stable until 2007 before landings started to increase. Having reached a peak in 2011 they have begun decreasing again. Edible crabs landed from pots were also showing an increasing trend up to 2012 but landings decreased in 2013. Spider crab landings reached a low peak in 2008 before decreasing to very low levels again.

In relation to pelagic species, Boarfish landings have fluctuated considerably since first being reported in 2007 but appear to have stabilised in the last two years. Horse mackerel had previously been relatively stable until extremely large landings occurred in 2009 (Table 5.9.2.9.3). These landings dropped in 2010 and have fluctuated since. Mackerel, having recorded increased landings in 2009 and 2010, in 2011 dropped by 60% before increasing again in 2012. Landings for 2013 are similar to 2012. Sprat landings increased greatly in 2013. Landings of albacore tuna were quite low historically but increased to a peak value in 2012. It dropped again in 2013. France reported small landings of Bluefin tuna and Swordfish in recent years.

Table 5.9.2.9.1. Top demersal species landed (tonnes) within the BSA, 2003-2013. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
BSA	HKE	L	3544	4171	3699	3792	4104	3475	3677	3541	5590	7980	10047
BSA	LEZ	L	2291	2124	2268	2015	2211	2258	3173	4440	3849	5354	8497
BSA	ANF	L	5323	4633	4082	4219	5147	4621	5213	4107	5069	6304	8291
BSA	WHG	L	5161	3126	2993	2398	2260	1632	2223	3345	3418	4728	4995
BSA	HAD	L	3671	3163	2957	2562	3106	2866	4104	3512	3965	5141	3954

Table 5.9.2.9.2. Scallop and crab species by gear landed within the BSA, 2003-2013. Values are landings in tonnes. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
BSA	CRE	L	454	402	773	221	399	404	427	617	512	722	510
BSA	SCE	L	174	126	197	114	170	370	470	490	836	710	510
BSA	SCR	L	6	19	13	4	25	75	68	34	35	21	5

Table 5.9.2.9.3. Top pelagic species landed (tonnes) within the BSA, 2003-2013. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
BSA	BOR	L					772		39659	71712	7269	41949	44132
BSA	MAC	L	25489	42147	32200	19108	28872	32871	42158	41044	17337	26042	23211
BSA	JAX	L	16597	19351	16175	16414	17164	24390	40321	28191	31915	42029	20689
BSA	SPR	L	732	3597	4191	837	3520	1313	3654	2485	1676	2918	10313
BSA	ALB	L	195	57	289	0	27	14	8	8	387	863	296
BSA	BFT	L	2	2			1				1	4	8
BSA	SWO	L	4	2	5		0	0	0		1	4	2

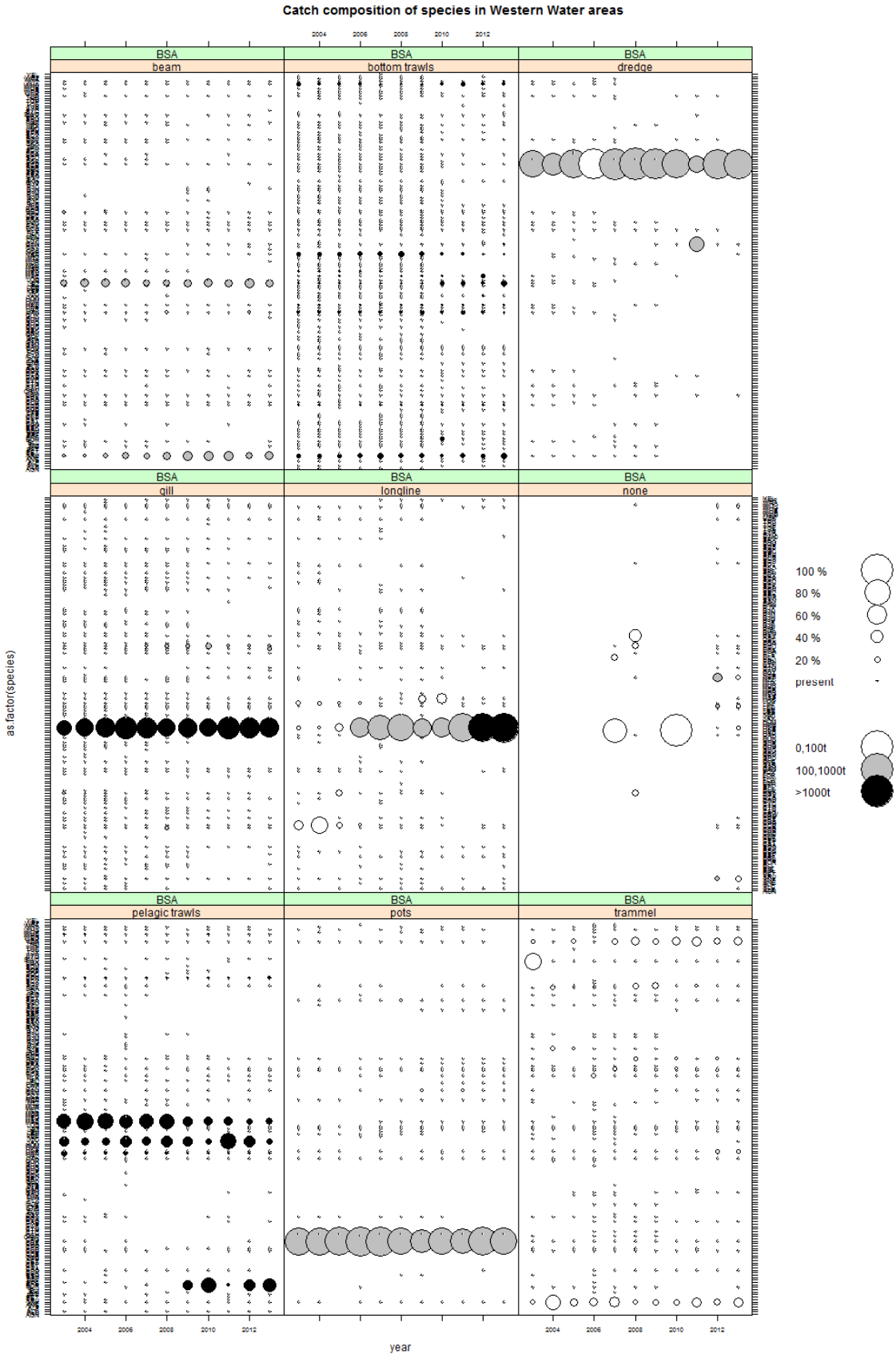


Figure 5.9.2.9.1. Landings composition by gear (countries combined) Western waters area BSA 2003 - 2013. Size of circles represents relative contribution to landings, shading indicates quantity.

5.9.2.10 Catches in ICES area VIII by fisheries and Member States

Deepwater VIII EU

In 2013 Spain reported the majority of the landings for this area. Spain landed large amounts of conger eel, caught by bottom trawl and longlines. Landings were down on the 2012 values, which were the highest of the series. Spain also reported increased landings Bluemouth redfish using longline, bottom trawl and gill nets. Spanish longlines and bottom trawls reported increased landings for Greater Forkbeard, Red spot seabream and Blue ling. Due to the lack of Spanish data for 2010 and 2011 it is impossible to say when this increase in these fisheries started.

French pelagic trawls regularly land small amounts, less than 10 tonnes, of black scabbard. Spain landed blackmouth dogfish in 2008 and 2009.

Table 5.9.2.10.1. Top 5 deepwater species landed in ICES Area VIII (EU). The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
8 EU	COE	L	99	143	81	75	71	91	167	31	48	2365	1527
8 EU	BRF	L	1	8	27	69	17	49	145	6	42	966	896
8 EU	FOX	L	22	31	19	9	14	20	75	0	0	2	139
8 EU	SBR	L	2	10	2	2	4	3	8	0	1	96	123
8 EU	BLI	L	3	6	8	13	9	14	41	5	3	87	100

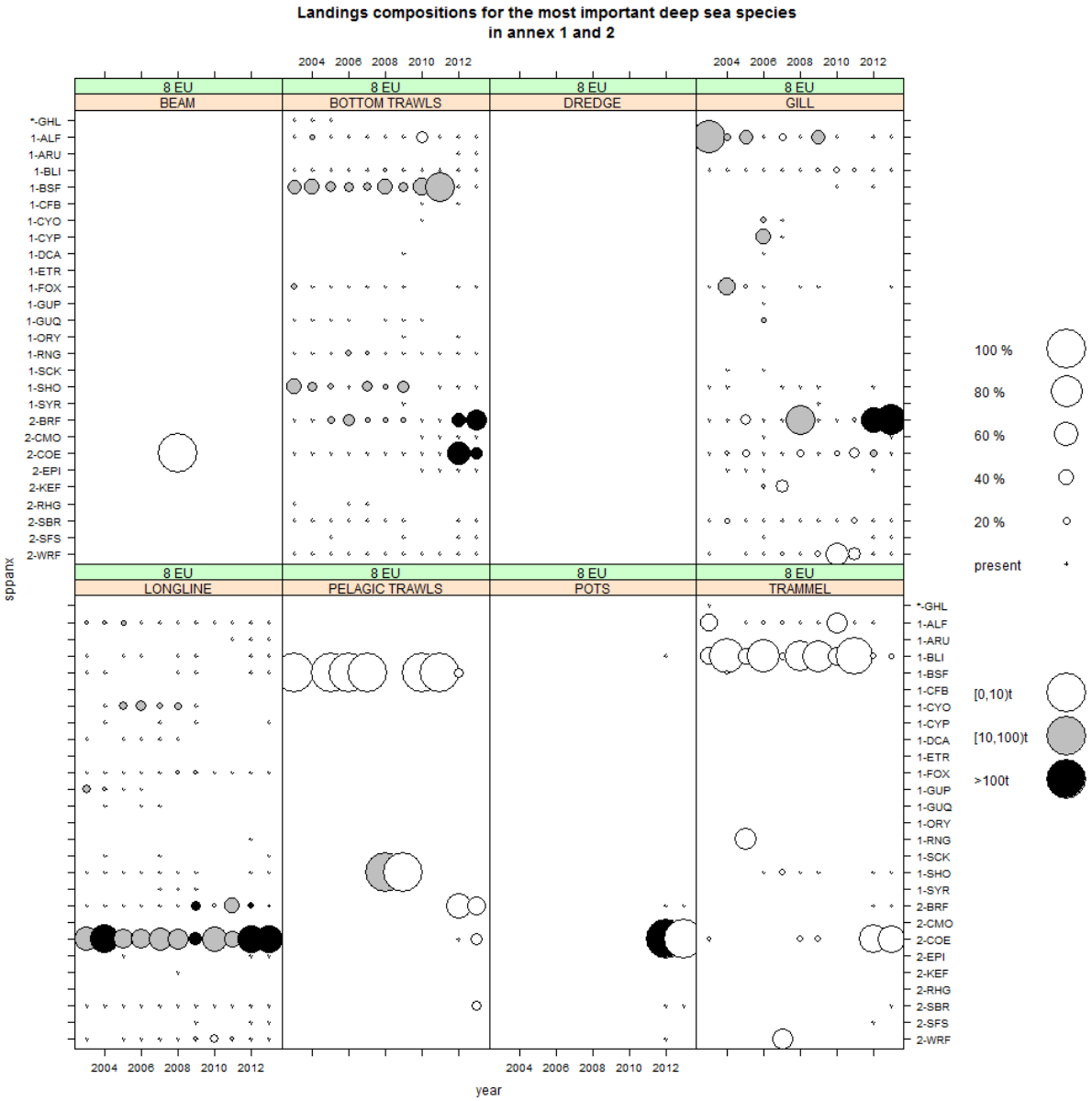


Figure 5.9.2.10.1 Landings of Annex 1&2 Deep Sea species (tonnes) 2003-2013 by gear ICES Area VIII (EU)

Table 5.9.2.10.2. Top 5 deepwater species discarded in ICES Area VIII (EU).

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
8 EU	COE	D										272	37
8 EU	BRF	D										956	88
8 EU	FOX	D	4	1	3	2	22	1	121			19	20
8 EU	SBR	D		0	1	1							64
8 EU	BLI	D											

Western Waters VIII EU

Due to the lack of Spanish landings data for 2010 and 2011 it is difficult to give an objective assessment of landings for these years.

Hake provide the largest landings of demersal species. Landings increased up to 2008 and appear to be stable since, Table 5.9.2.10.3. Landings increased again in 2013. Anglerfish landings, which had been

stable between 2004 and 2009, appeared to be decreasing. In 2013 however landings were at levels last seen in the mid-2000s. Sole landings have been stable since 2005. Landings of *Nephrops norvegicus* were stable through the time series, but have begun to decrease since 2012. Landings of *Lepidorhombus* species have been increasing since 2011, having been stable through the time series.

Details of scallop and crab landings from this area are given in Table 5.9.2.10.4. Scallops are primarily landed by dredge. Having been quite stable through the time series landings have declined dramatically in 2010 and 2011, but showed an improvement again in 2012 and 2013. The main landings of edible crab are from pots, with some landings coming from bottom trawls. Crab landings from pots fell by 80% in 2008 and 2009, but since 2010 have increased greatly, with 2012 providing the highest landings of the time series. 2013 landings are very similar to 2012. Trammel nets provide landings of spider crabs, as do bottom trawls and gill nets. However landings from all three methods had been in decline, but landings increased again in 2013, back to levels seen in the mid-2000s.

Pelagic landings have been dominated by mackerel which reached a peak in 2009. Landings appear to be dropping in 2010 and 2011but this may be a reflection of the lack of Spanish data in those years. Landings data in the last two years appear to stabilise at a lower level. Horse mackerel stocks which were reasonably stable up to 2008 had declined up to 2012. Landings increased again in 2013. Pilchard landings had been increasing between 2003 and 2009; however no data was reported for this species between 2010 and 2012. Pilchard landings for 2013 were the highest in the series. Anchovy landings declined from an early peak in 2004 with minimal landings reported for 2008 and 2009. Landings have improved since then with 2013 being the highest of the time series. Albacore tuna landings peaked in 2006 before decreasing to 2009. Landings for 2012 are the second highest of the series however landings for 2013 have decreased again. Smaller landings of Swordfish and a number of other tuna species have been reported for 2013 with France providing the largest landings of Bluefin and Yellowfin tuna, and Spain the largest for Bigeye tuna.

Table 5.9.2.10.3. Top demersal species landed (tonnes) within Area VIII EU, 2003-2013. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
8 EU	HKE	L	6034	6093	9609	9677	12348	16546	17137	9141	10120	18607	23686
8 EU	ANF	L	5627	6943	7929	7861	7603	7348	7192	1153	2897	3930	7485
8 EU	SOL	L	2278	2549	3299	3479	3279	3342	3427	3010	3644	3358	3512
8 EU	NEP	L	2501	2605	3232	3020	2909	2765	2735	2587	3014	1865	1799
8 EU	LEZ	L	496	585	586	611	689	603	628	688	579	966	1664

Table 5.9.2.10.4. Scallop and crab species by gear landed within Area VIII EU, 2003-2013. Values are landings in tonnes. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
8 EU	CRE	L	1082	1353	1020	1005	891	392	388	1430	1495	1797	1783
8 EU	SCE	L	540	533	660	633	727	635	618	179	217	571	616
8 EU	SCR	L	560	704	720	899	758	587	579	497	428	450	710

Table 5.9.2.10.5. Top pelagic species landed (tonnes) within Area VIII EU, 2003-2013. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
8 EU	JAX	L	30334	27689	38986	37470	27774	36520	23402	1206	1008	15624	29721
8 EU	PIL	L	8042	7846	9852	8980	13673	15900	15900	0	0	0	29172
8 EU	MAC	L	28120	37759	52097	54861	57854	59399	98446	5446	4108	23677	21895
8 EU	ANE	L	3058	5634	205	910	97	0	0	2267	2048	12781	13740
8 EU	ALB	L	4953	3785	10154	13066	7989	3642	1038	269	190	11799	4463
8 EU	BFT	L	698	1685	3444	1385	1721	1334	343	65	25	214	133
8 EU	BET	L	60	16	326	52	320	5	5	0	0	15	73
8 EU	SWO	L	47	23	94	88	43	16	3	6	2	36	13
8 EU	YFT	L	0	0	27	0	12	0	0	3	0	0	0

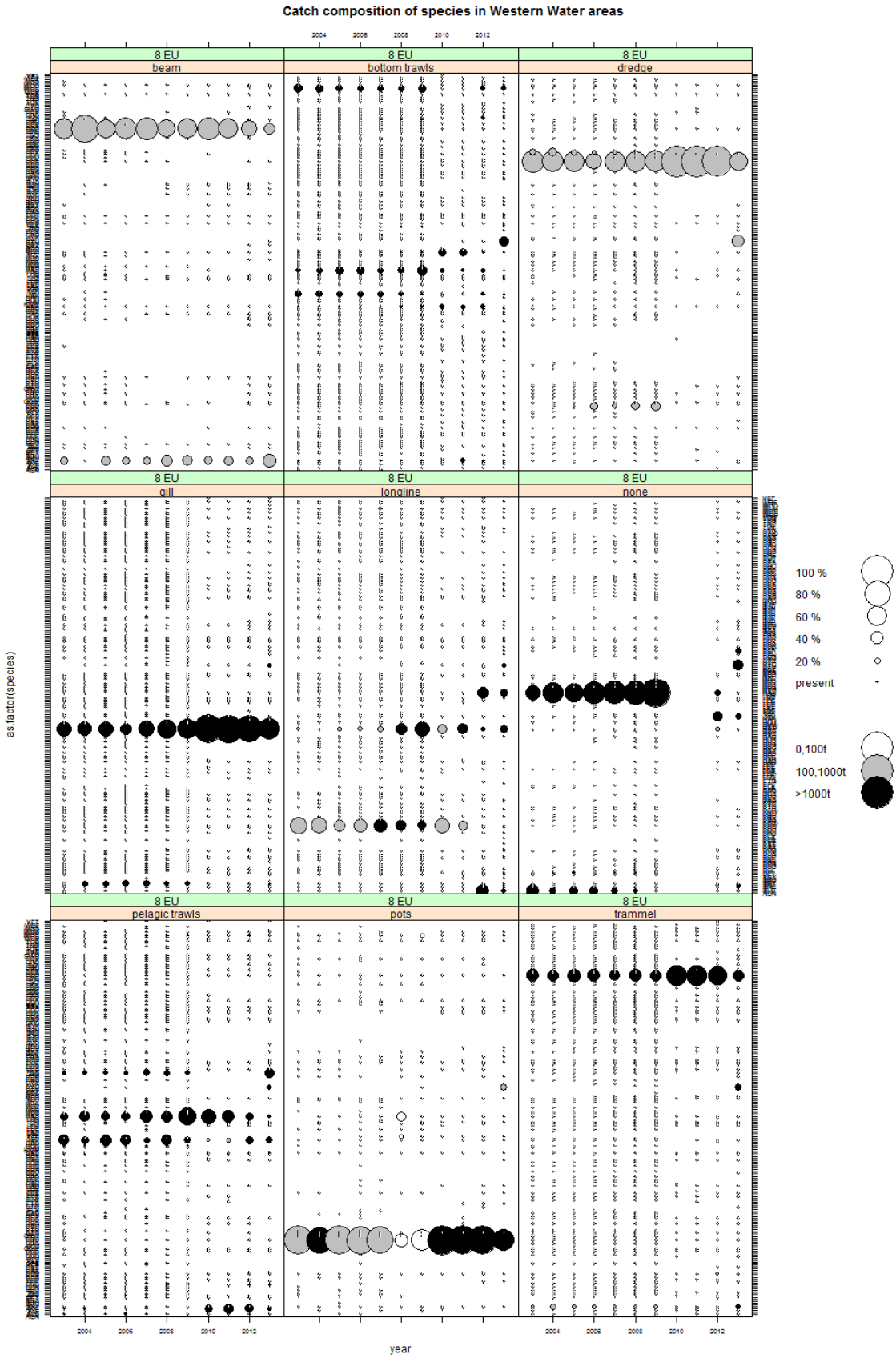


Figure 5.9.2.10.2. Landings composition by gear (countries combined) Western waters area VIII EU 2003 - 2013. Size of circles represents relative contribution to landings, shading indicates quantity.

Deepwater VIII non-EU

Spain reported landings of less than 1t each for Bluemouth redfish, Conger eel and Blue ling for 2013,

Table 5.9.2.10.5 Top 5 deepwater species landed (tonnes) in ICES Area VII (EU). The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
8 NON EU	BRF	L										0	0
8 NON EU	COE	L										0	0
8 NON EU	BLI	L									0		0

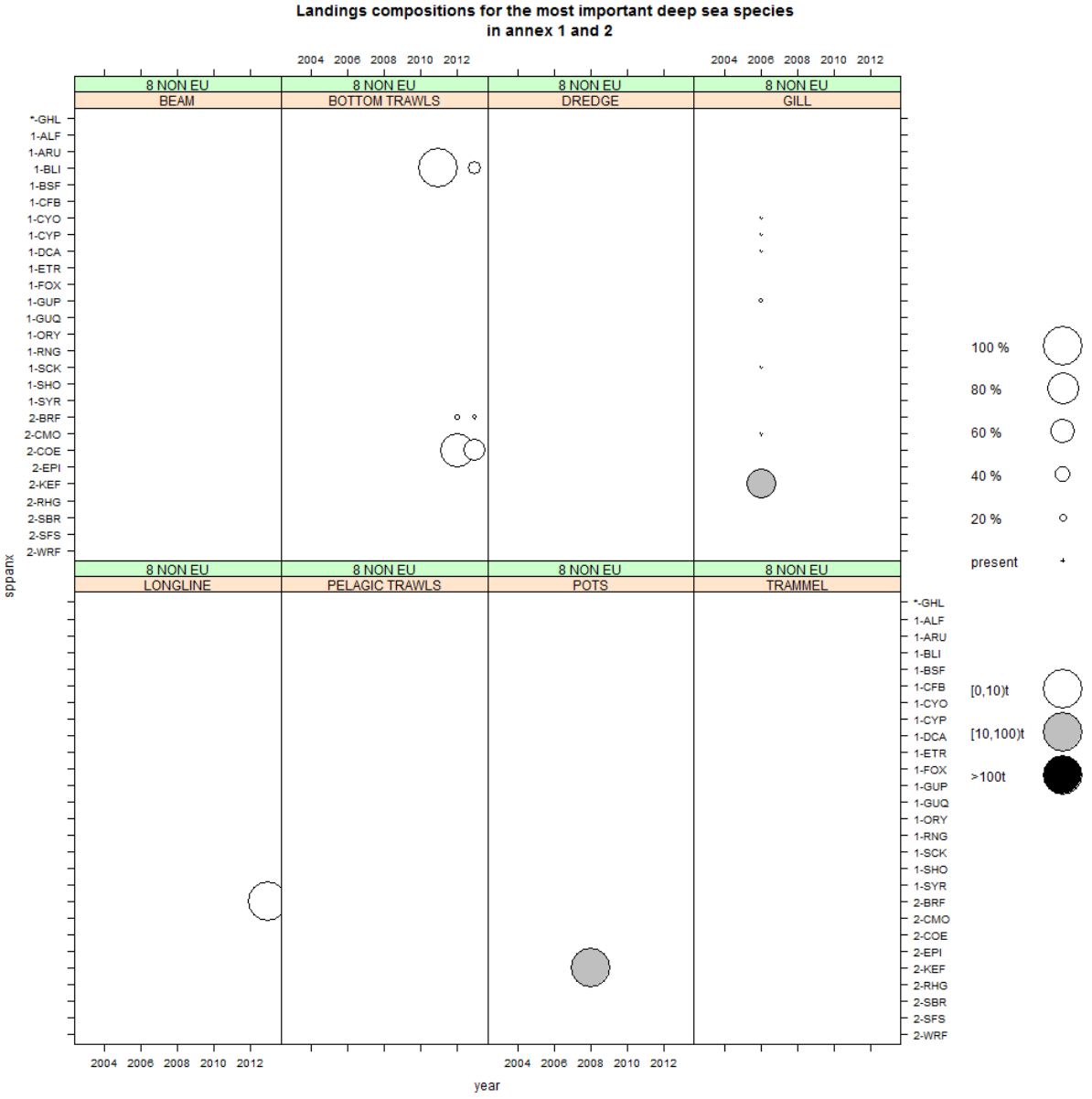


Figure 5.9.2.10.1 Landings of Annex 1&2 Deep Sea species (tonnes) 2003-2013 by gear ICES Area VIII (EU).

Western Waters VIII non-EU

No demersal species landings were reported between 2003 and 2010. In 2011 18t of hake was reported for French bottom trawls (Table 5.9.2.10.6), while in 2013 Spain reported 3t. Very small landings were of other species were reported for 2013.

No scallops or crabs landings were reported for 2012 or 2013, (Table 5.9.2.10.7).

Albacore tuna landings were first reported in 2010 by France and Scotland and increased again 2011. In 2012 landings continued to increase but Spain was the main contributor rather than either of the earlier two countries, (Table 5.9.2.10.8). In 2013 landings showed a decrease with Spain still being the major contributor. In 2013 Spain reported landings of Bigeye tuna while France reported small landings of Bluefin tuna. Both France and Scotland reported small landings of Yellowfin tuna.

Table 5.9.2.10.6. Top demersal species landed (tonnes) within Area VIII non-EU, 2003-2013. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
8 NON EU	HKE	L								0	18	0	3
8 NON EU	RAJ	L											0
8 NON EU	ANF	L									6		0
8 NON EU	TUR	L											0
8 NON EU	WIT	L											0

Table 5.9.2.10.7. Scallop and crab species by gear landed within Area VIII non-EU, 2003-2013. Values are landings in tonnes. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
8 NON EU	SCR	L								0	0		

Table 5.9.2.10.8. Top pelagic species landed (tonnes) within Area VIII non-EU, 2003-2013. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
8 NON EU	ALB	L								246	390	607	281
8 NON EU	SWO	L								0	1	2	33
8 NON EU	BET	L										0	1
8 NON EU	YFT	L								12	21		0
8 NON EU	BFT	L											0

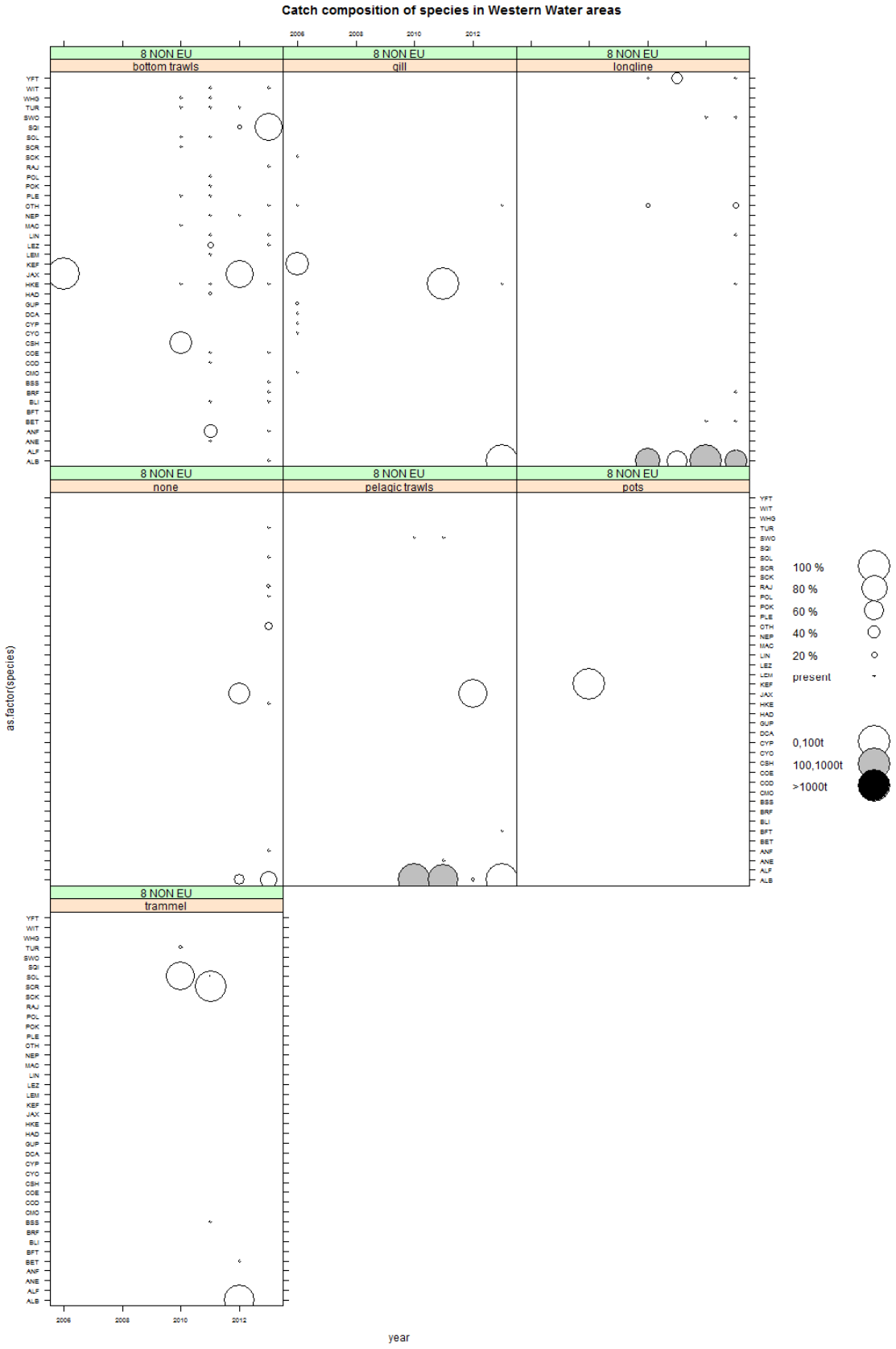


Figure 5.9.2.10.4. Landings composition by gear (countries combined) Western waters area VIII non-EU 2003 - 2013. Size of circles represents relative contribution to landings, shading indicates quantity.

5.9.2.11 Catches in ICES area IX by fisheries and Member States

Deepwater IX EU

Portuguese longlining for Black scabbard fish is the major component of this area. Landings began to increase in 2005 and have been quite stable since 2007. Throughout the time series Portugal has reported small landings of Conger eel using longline, however in 2012 and 2013 Spain has reported large catches of this species using longline, bottom trawl, and in particular pots. Spain also reported landings of blue mouth redfish in 2012 and 2013, (Table 5.9.2.11.1, Fig 5.9.2.11.1). Spain also reported small landings for Red seabream and Silver scabbard in 2013.

Longlining is the major gear used in the area, mainly by Spain and Portugal, followed by bottom trawl. Blackmouth catshark were the main landings by bottom trawl historically, but these ceased in 2010.

Table 5.9.2.11.1. Top 5 deepwater species landed in ICES Area IX (EU). The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
9 EU	BSF	L	422	43	1175	1939	2720	2854	2701	2702	2704	2472	2027
9 EU	COE	L	14	8	23	48	50	42	22	11	15	413	347
9 EU	BRF	L	3		5	10	47	18	19	14	12	176	183
9 EU	SFS	L	3	1			1					7	58
9 EU	SBR	L		0	0	9	16	7	7	5	11	21	58

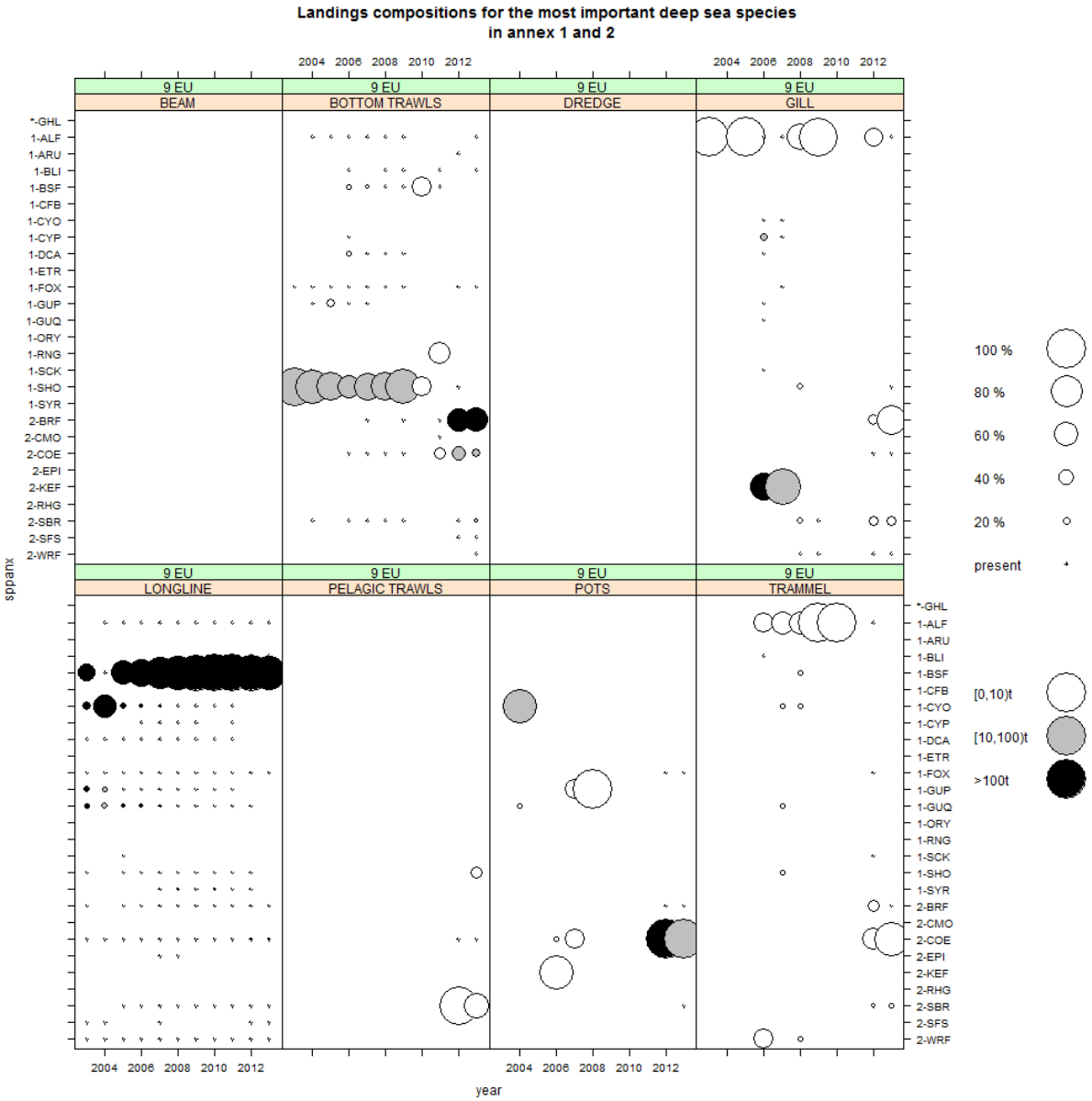


Figure 5.9.2.11.1 Landings of Annex 1&2 Deep Sea species (tonnes) 2003-2013 by gear ICES Area IX (EU).

Table 5.9.2.11.2. Top 5 deepwater species discarded in ICES Area IX (EU).

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
9 EU	BSF	D					0	0	0	0			
9 EU	COE	D										37	3
9 EU	BRF	D										180	37
9 EU	SFS	D											
9 EU	SBR	D		0		2							1

Western Waters IX EU

Hake is the most important demersal species landed in this area. These landings began increasing in 2004 and peaked in 2009. They have declined since then, but landings in 2013 showed an increase on 2012. Landings of Rajidae, which had been relatively stable since 2009, almost doubled in 2013. 60% of these landings were reported by Portugal with the rest by Spain. Anglerfish landings have remained quite stable despite experiencing a small peak in 2006 and 2007. The absence of Spanish data for 2010 and 2011 distorts the table somewhat. Landings of Sole have been increasing slowly since 2008.

Small landings of spider crab were reported between 2006 and 2010 by Portugal using trammel nets. Spain has reported nearly all the spider crab, edible crab and scallop landings in the last two years.

Spain and Portugal are the two countries reporting landings of pelagic species from this. Horse mackerel is the major species caught with both pelagic and bottom trawls being used. Landings have fluctuated somewhat throughout the time series, but currently appear to be on an upward trend, although without Spanish data for 2010 and 2011 it is not possible to give a full assessment of trends. Anchovy landings were very low until 2012 when Spain reported large landings using pelagic trawls although these landings decreased again in 2013, though they are still well above previous levels. Blue whiting landings were high until 2010 but although they had dropped by 50% in 2012 they showed an increase again in 2013. Spain reported Pilchard landings for the first time in 2013.

Swordfish and albacore landings have fluctuated through the time series. In 2012 Spain reported high landings for swordfish using longlines, and this increased again in 2013. Landings of Albacore tuna decreased in 2013 from 2012 levels. Small landings of Bigeye tuna were also reported by Spain for 2012 and 2013.

Table 5.9.2.11.2. Top demersal species landed (tonnes) within Area IX EU, 2003-2013. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
9 EU	HKE	L	913	751	1217	2777	4143	5025	6736	1764	1252	3191	3836
9 EU	RAJ	L	47	56	62	111	269	277	423	501	489	456	848
9 EU	ANF	L	607	544	620	918	1164	763	596	187	276	610	645
9 EU	LEZ	L	235	211	219	277	230	206	217	0	0	160	264
9 EU	SOL	L	19	25	53	55	688	136	157	163	161	231	249

Table 5.9.2.11.3. Scallop and crab species by gear landed within Area IX EU, 2003-2013. Values are landings in tonnes. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
9 EU	CRE	L										2	1
9 EU	SCE	L										43	49
9 EU	SCR	L				5	6		2	5		94	56

Table 5.9.2.11.4. Top pelagic species landed (tonnes) within Area IX EU, 2003-2013. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
9 EU	ANE	L	23	36	5	23	22	7	17	6	10	4813	2377
9 EU	JAX	L	7387	11325	7329	10412	12393	15012	10372	4637	4036	14191	17690
9 EU	PIL	L											8537
9 EU	WHB	L	4271	6967	6993	4620	5220	6607	6123	1154	463	2828	4110
9 EU	SWO	L	22	46	12	6	15	13	7		7	198	213
9 EU	ALB	L	13	51	179	57	111	110	4			73	54
9 EU	BET	L		0		0			2			1	1

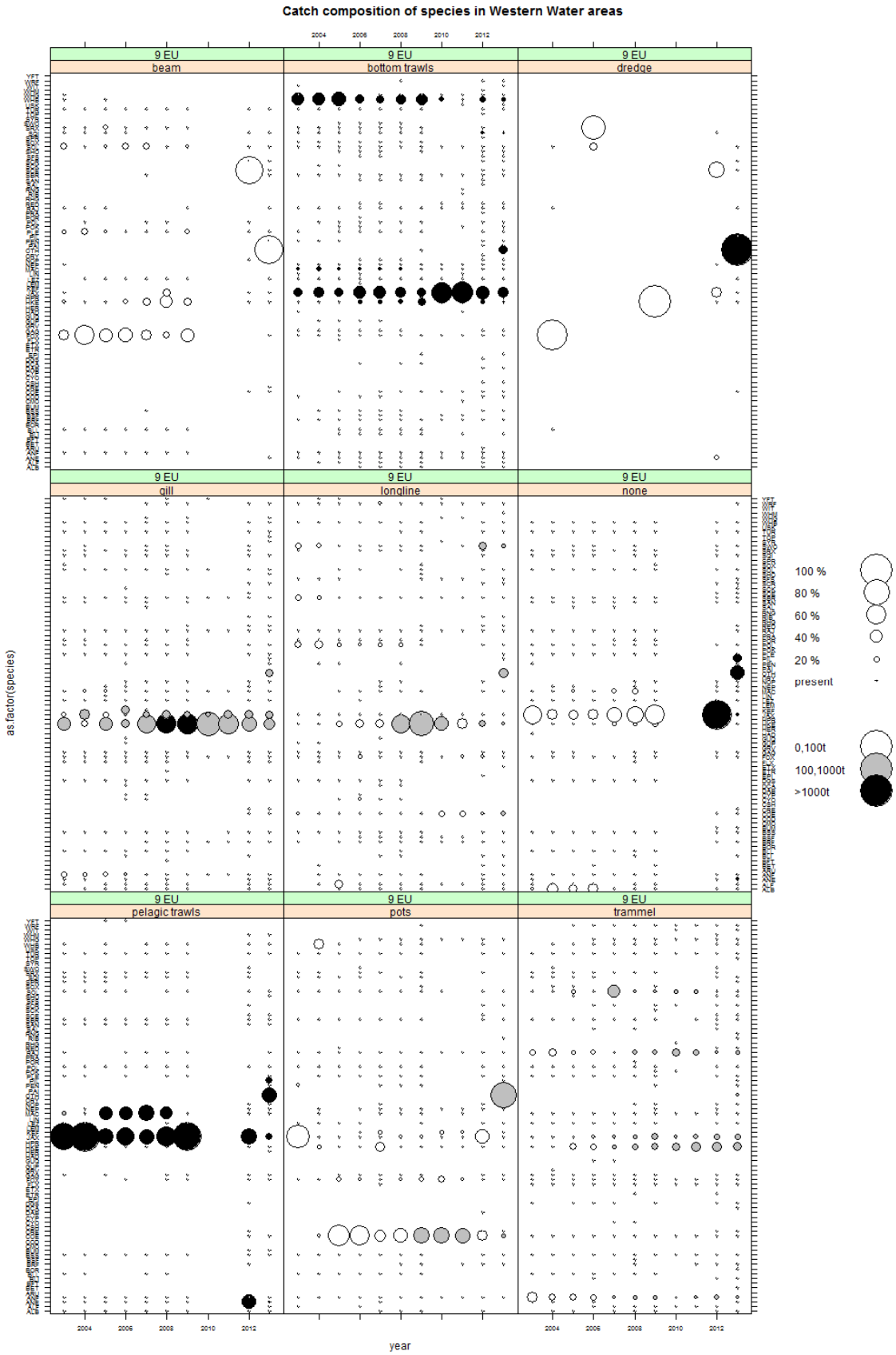


Figure 5.9.2.11.2. Landings composition by gear (countries combined) Western waters area IX EU 2003 - 2013. Size of circles represents relative contribution to landings, shading indicates quantity.

Deepwater IX non EU

Landings from this area in 2013 were very small. Spain reported less than 2t of Bluemouth redfish and less than 1t of Conger eel and Greater Forkbeard. Having been the most important species through the time series landings of conger eel have been in decline for a number of years.

Table 5.9.2.11.5. Top 5 deepwater species landed in ICES Area IX (non EU). The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
9 NON EU	BRF	L				1	2	2	5		2	1	1
9 NON EU	COE	L	1	12	8	4	9	10	12	6	12	0	0
9 NON EU	FOX	L			4			1					0

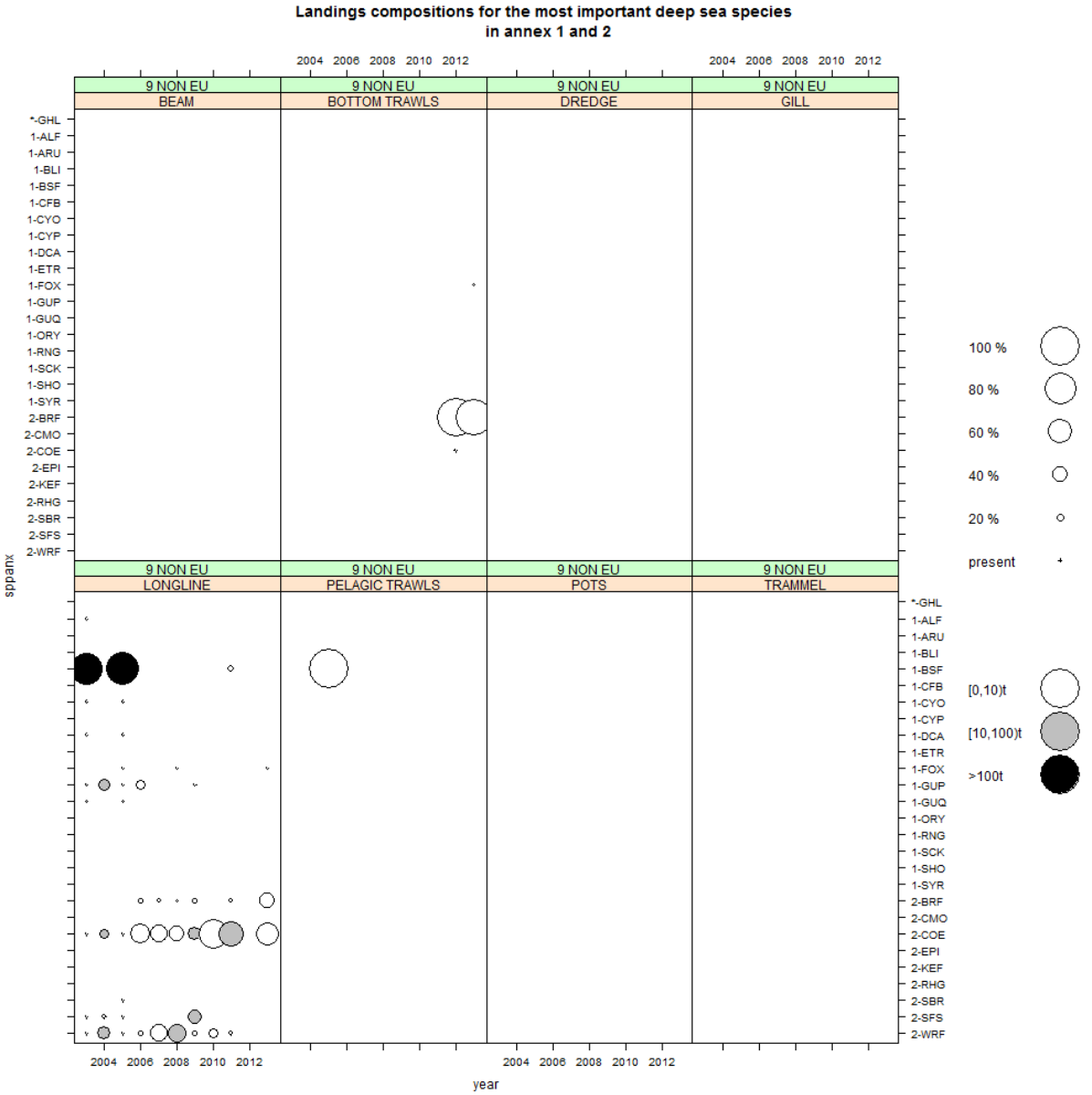


Figure 5.9.2.11.3 Catches of Annex 1&2 Deep Sea species (tonnes) 2003-2013 by gear ICES Area IX (non EU).

Western Waters IX non-EU

Demersal landings are very low for this area. Spain has reported small landings of Hake and a number of other species for 2012 and 2013. Portugal reported small landings prior to 2006.

No landings of scallop or crab have been reported for this area

Pelagic landings in this area ceased between 2005 and 2011, except for a small amount of horse mackerel reported by Portugal in 2009. In 2013 Spain reported landings of almost 130 tonnes for Swordfish. They also reported nearly 50 tonnes each for Pilchard and Blue whiting. Landings for all other pelagic species are minimal.

Table 5.9.2.11.6. Top demersal species landed (tonnes) within Area IX non-EU, 2003-2013. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
9 NON EU	HKE	L	48	9	34							10	13
9 NON EU	ANF	L	25		12							1	5
9 NON EU	NEP	L	6									1	3
9 NON EU	RAJ	L			1			2	2				1
9 NON EU	LEZ	L										0	0

Table 5.9.2.11.7. Scallop and crab species by gear landed within Area IX non-EU, 2003-2013. Values are landings in tonnes. The ranking is based according to the last year landings.

No landings have been reported for this area

Table 5.9.2.11.8. Top pelagic species landed (tonnes) within Area IX non-EU, 2003-2013. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
9 NON EU	JAX	L	4	26	59				2			49	3
9 NON EU	MAC	L	5		6							19	1
9 NON EU	PIL	L											49
9 NON EU	WHB	L	5	33	43							13	49
9 NON EU	SWO	L	3		3							71	129
9 NON EU	BET	L			1							1	2
9 NON EU	ALB	L										2	1
9 NON EU	YFT	L										0	0

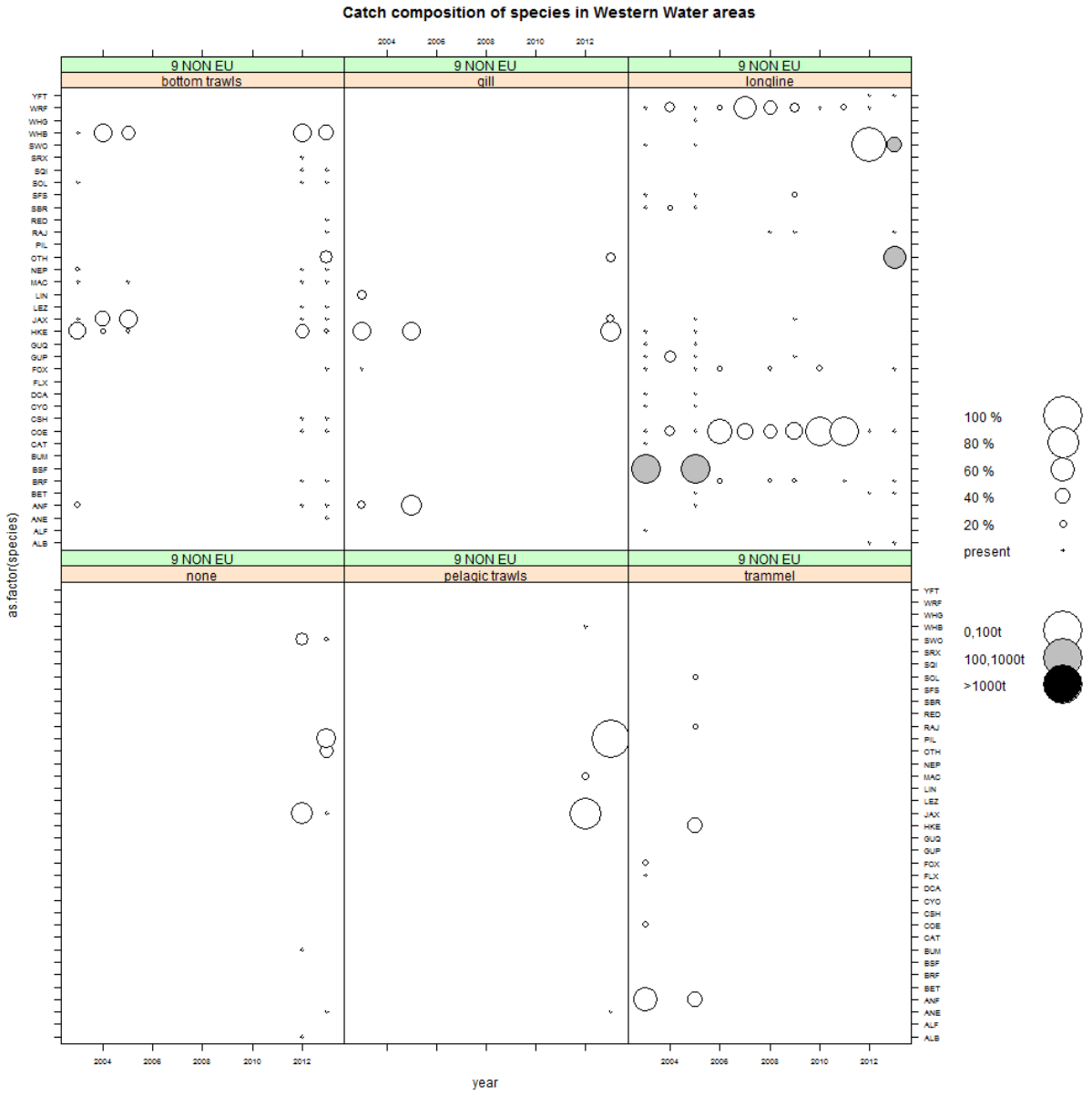


Figure 5.9.2.11.4. Landings composition by gear (countries combined) Western waters area IX non EU 2003 - 2013. Size of circles represents relative contribution to landings, shading indicates quantity.

5.9.2.12 Catches in ICES area X by fisheries and Member States

Deepwater X EU

Portugal recently resubmitted their data for this area. It is mainly related to longlining in the Azores. Red seabream is the most important species although landings have been in decline since 2009. Landings for Conger eel were stable through the time series but showed a slight increase in 2013. Black scabbard and Silver scabbard have increased in the last number of years, although Black scabbard decreased by 50% in 2013. Bluemouth redfish landings have fluctuated slightly through the time series.

Table 5.9.2.12.1. Top 5 deepwater species landed in ICES Area X (EU). The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
10 EU	SBR	L	567	590	635	517	615	656	616	403	357	303	350
10 EU	COE	L	265	203	171	250	237	250	228	198	271	259	303
10 EU	BSF	L	1	2	125	20	0	0	3	32	116	443	206
10 EU	SFS	L	19	22	26	29	46	53	43	46	97	156	203
10 EU	BRF	L	213	171	116	156	211	218	225	164	189	138	176

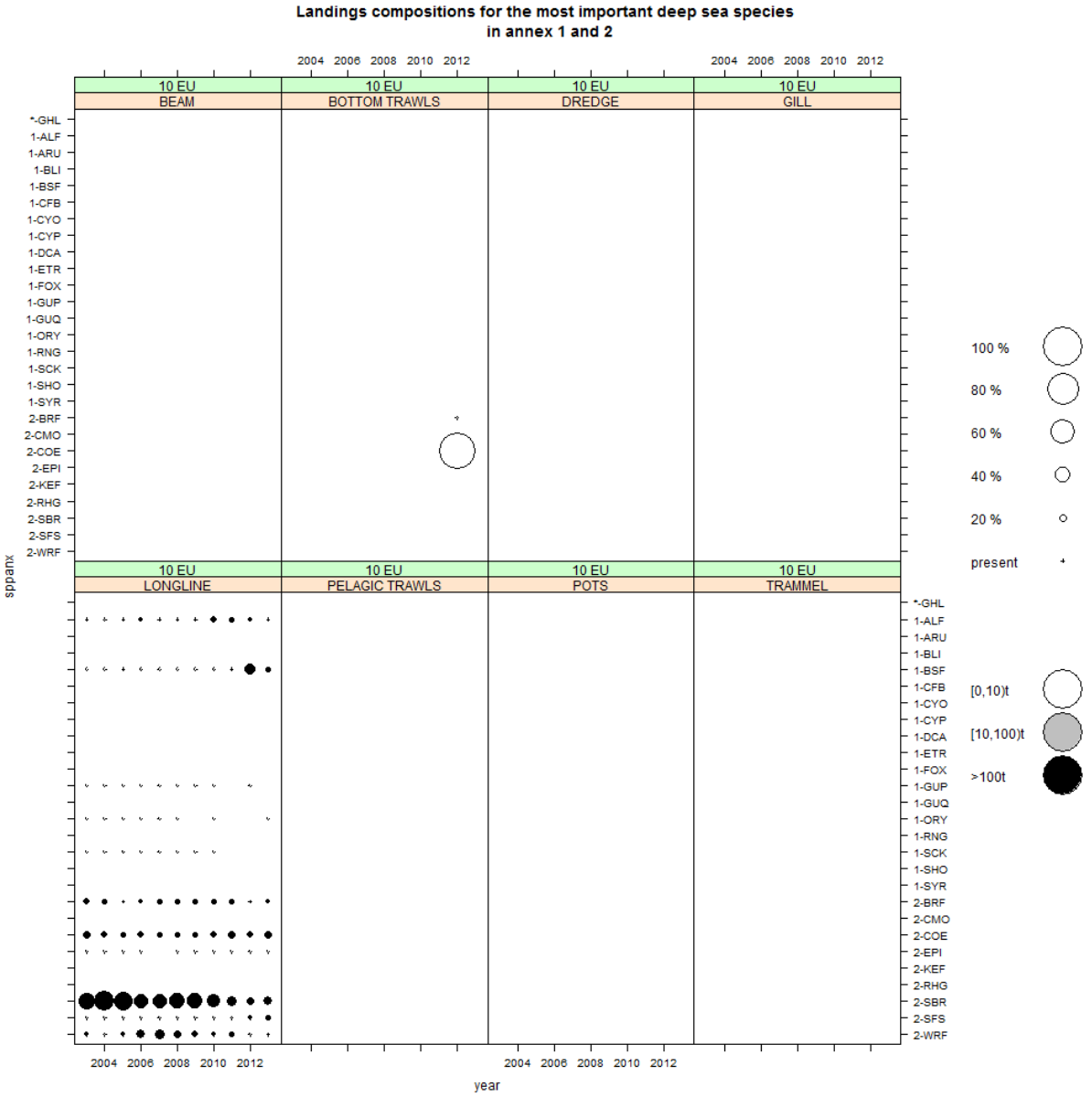


Figure 5.9.2.12.1 Catches of Annex 1&2 Deep Sea species (tonnes) 2003-2013 by gear ICES Area X EU.

Western Waters X EU

There have been no demersal, scallop, or crab species landed, and minimal pelagic landings from this area prior to 2012. Spain reported small demersal landings in 2012 and 2013.

Spain landed approximately 160t of Swordfish from longlines, smaller amounts of Bigeye tuna and small landings of a number of other pelagic species.

Spain also reported less than 1 tonne of spider crab in 2012.

Table 5.9.2.12.2. Top demersal species landed within Area X (non EU), 2003-2013. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
10 EU	RAJ	L											0
10 EU	POL	L										0	0
10 EU	HKE	L										3	0
10 EU	ANF	L										0	
10 EU	LIN	L										0	

Table 5.9.2.12.3. Top pelagic species landed within Area X (EU), 2003-2013. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
10 EU	ANE	L										1	2
10 EU	JAX	L										10	1
10 EU	PIL	L											2
10 EU	SWO	L										178	162
10 EU	BET	L									4	10	23
10 EU	ALB	L										4	2
10 EU	YFT	L							9			0	1

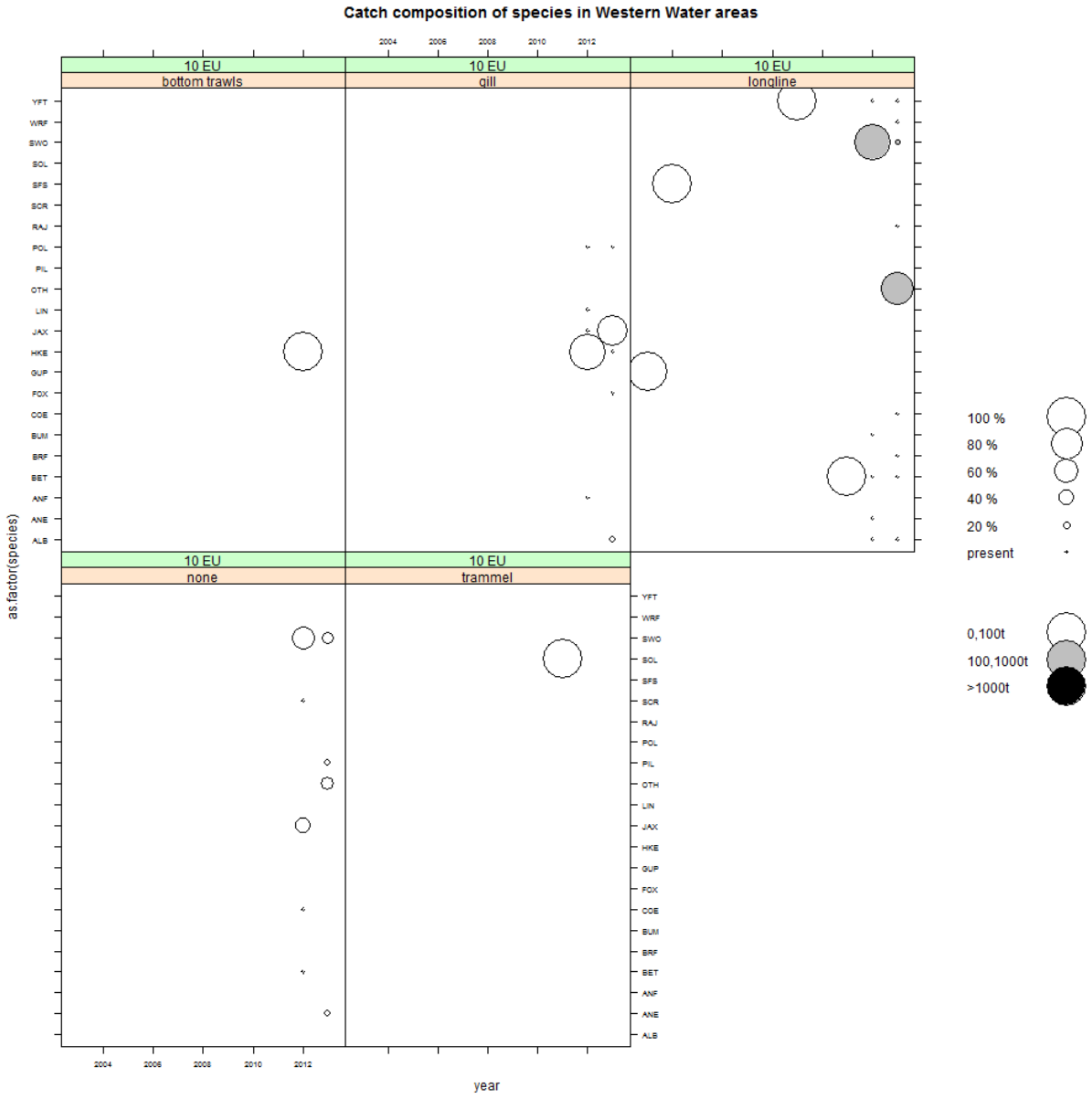


Figure 5.9.2.12.2 Landings composition by gear (countries combined) Western waters area X (EU) 2003 - 2013. Size of circles represents relative contribution to landings, shading indicates quantity.

Deepwater X non-EU

Spain reported landings of less than 1 tonne for both Blue ling and Bluemouth redfish.

Table 5.9.2.12.4. Top 5 deepwater species landed in ICES Area X (non EU). The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
10 NON EU	BLI	L											0
10 NON EU	BRF	L					1						0

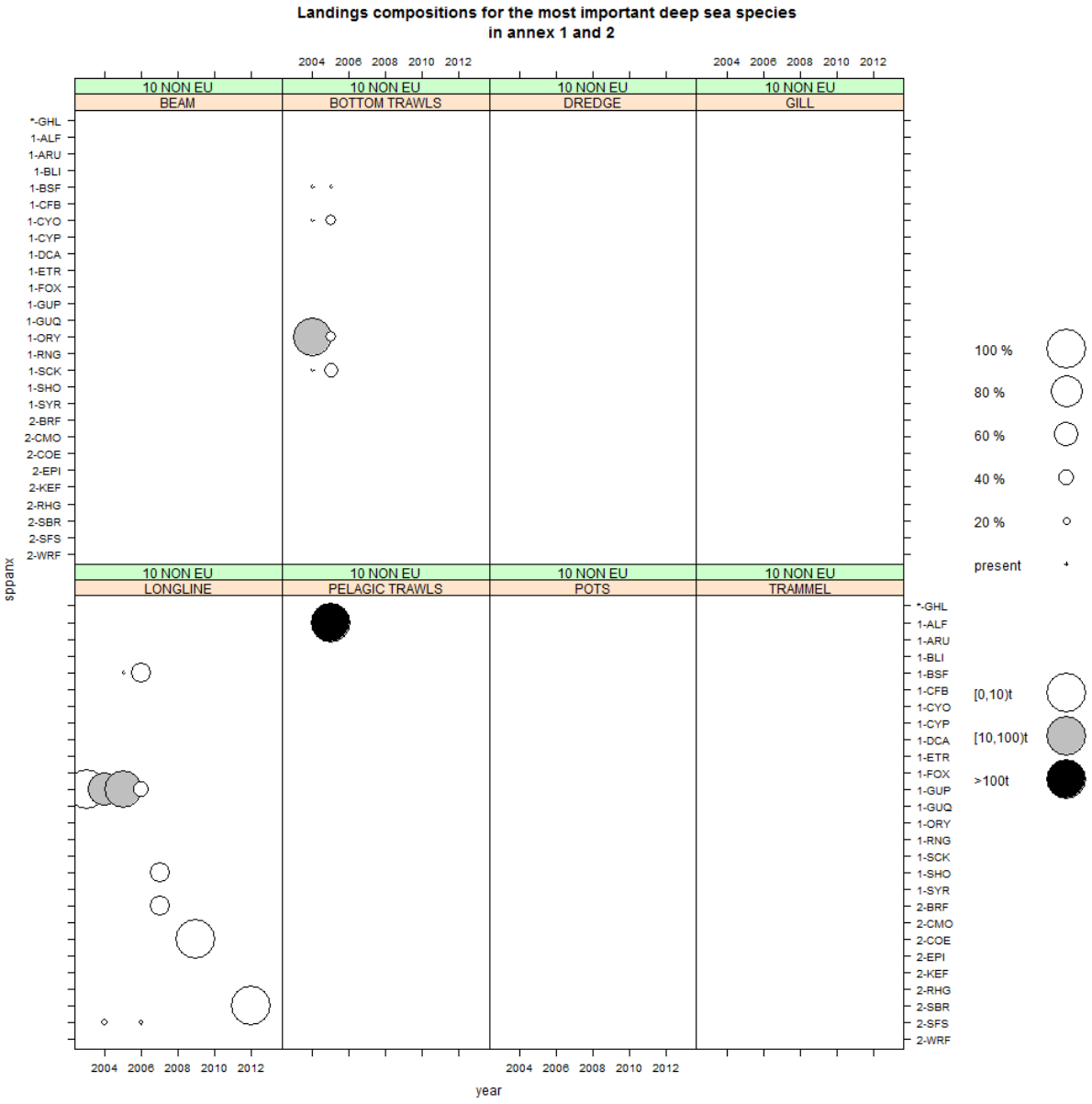


Figure 5.9.2.12.2. Catches of Annex 1&2 Deep Sea species (tonnes) 2003-2013 by gear ICES Area X (non EU)

Western Waters X non-EU

Minimal landings of demersal species have been reported between 2010 and 2013, Table 5.9.2.12.5

France reported landings of less than 1t of scallops in 2013, Table 5.9.2.12.6.

Minimal pelagic landings were reported prior to 2012. In 2013 Spain reported landings of greater than 2300 tonnes of Albacore tuna using longlines, with Ireland reporting a further 400 tonnes from pelagic trawls. Spain also reported large landings of Swordfish. All other pelagic landings were minimal.

Table 5.9.2.12.5. Top demersal species landed (tonnes) within Area X non-EU, 2003-2013. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
10 NON EU	ANF	L								0	0	0	0
10 NON EU	HKE	L								1	0	1	0
10 NON EU	RAJ	L							1				0
10 NON EU	WHG	L								0	0	1	0
10 NON EU	SOL	L								1	1	1	0

Table 5.9.2.12.6. Scallop and crab species by gear landed within Area X non-EU, 2003-2013. Values are landings in tonnes. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
10 NON EU	CRE	L									0	0	
10 NON EU	SCE	L										1	0
10 NON EU	SCR	L								0	0	0	

Table 5.9.2.12.7. Top pelagic species landed (tonnes) within Area X non-EU, 2003-2013. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
10 NON EU	ANE	L											0
10 NON EU	JAX	L										134	1
10 NON EU	MAC	L								1	0	0	0
10 NON EU	PIL	L											3
10 NON EU	ALB	L			2			1			5	650	2855
10 NON EU	SWO	L	2		2	1		1				715	559
10 NON EU	BET	L										21	43
10 NON EU	YFT	L							3				1
10 NON EU	BFT	L											1

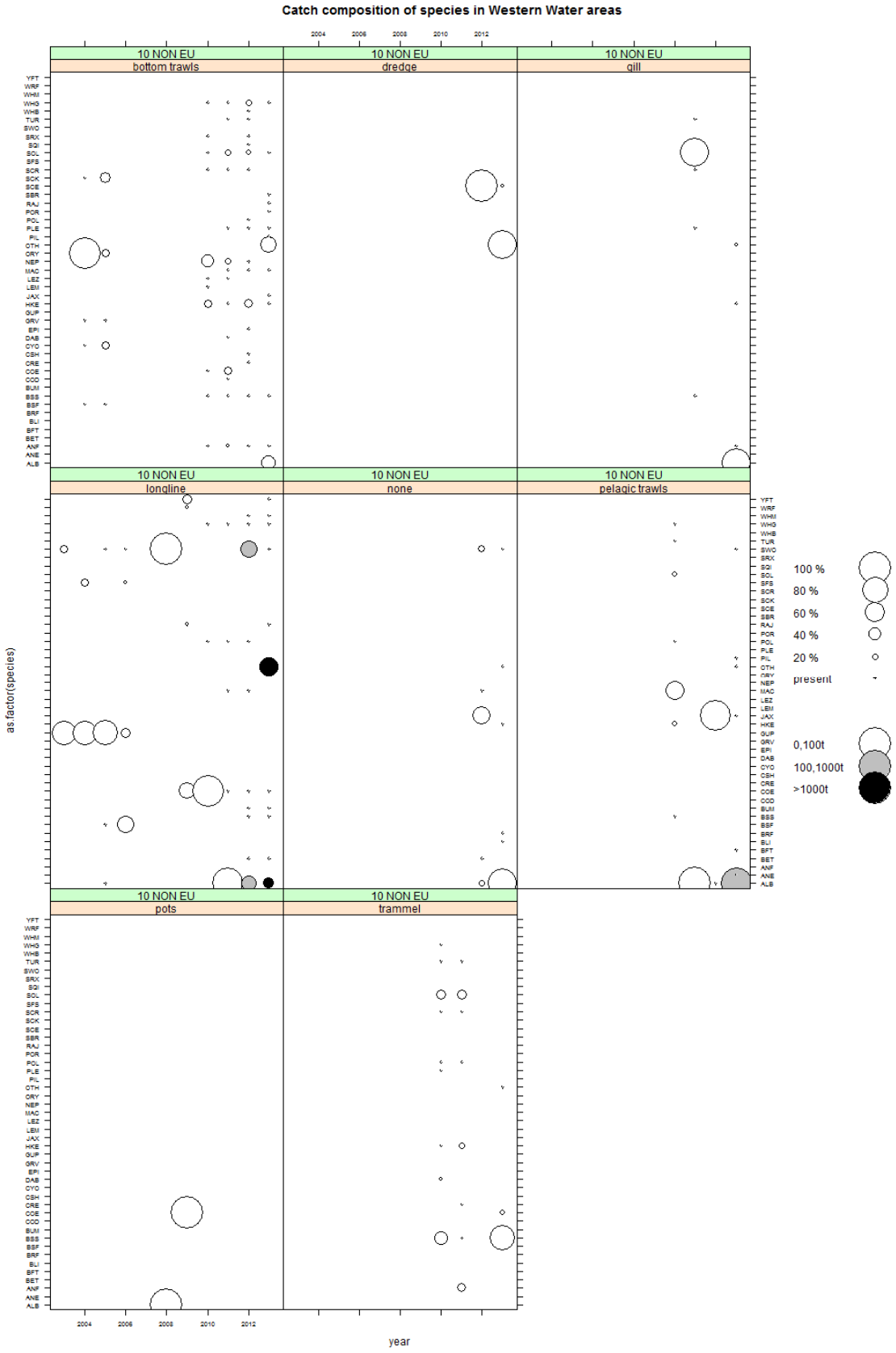


Figure 5.9.2.12.3. Landings composition by gear (countries combined) Western waters area X non-EU 2003 - 2013. Size of circles represents relative contribution to landings, shading indicates quantity.

5.9.2.13 Catches in ICES area XII by fisheries and Member States only linked to Deep Sea species

Area XII non-EU

Landings of Roundnose grenadier, by Spain, have been in decline since they were first reported in 2009, Figure 5.9.2.13.1 and Table 5.9.2.13.1. Earlier landings of this species were reported by Estonia.

In 2012 and 2013 also Spain reported landings of Bairds smoothhead, Greenland halibut, Silver scabbard fish and Blue ling.

Orange roughy was landed by Ireland in 2003. Sporadic landings of blue ling and black scabbard were reported up to 2006, with France reporting a small catch of black scabbard for 2010 and 2011. Gill net catches of Portuguese dogfish, leafscale gulper shark and deep-water red crab by the UK ended in 2006. Occasional pot landings of deep-water red crab ended in 2008.

Table 5.9.2.13.1. Top 5 deepwater species landed in ICES Area XII (non EU). The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
12 NON EU	RNG	L	1		20	27	140		2273	2		1521	914
12 NON EU	ALC	L			3	76	9					612	350
12 NON EU	BLI	L	6		21	1	7		196	0	0	205	178
12 NON EU	GHL	L	0		0	2						114	150
12 NON EU	SFS	L										244	126

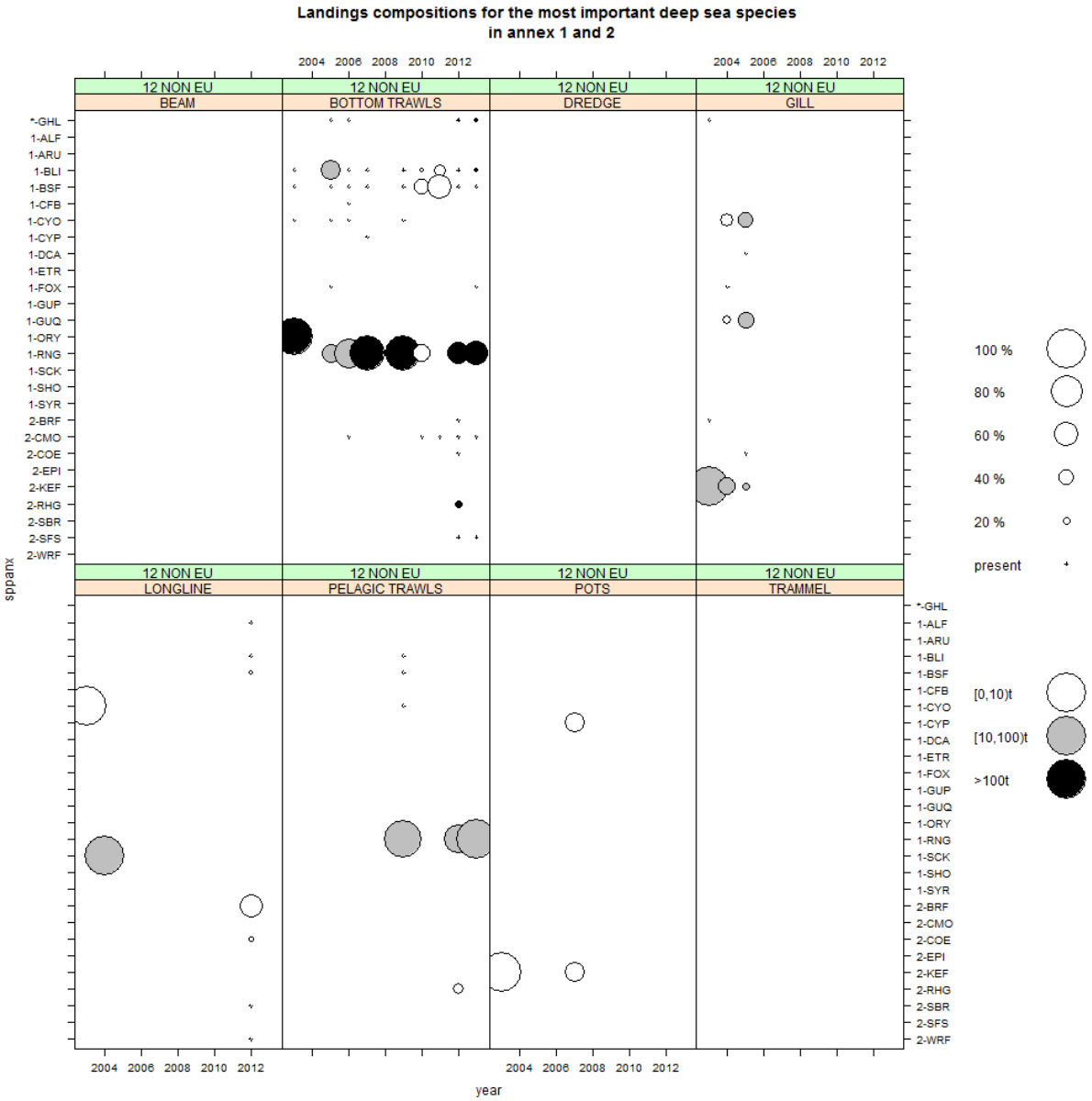


Figure 5.9.2.13.1 Landings of Annex 1&2 Deep Sea species (tonnes) 2003-2013 by gear ICES Area XII (non EU)

5.9.2.14 Catches in ICES area XIV by fisheries and Member States only linked to Deep Sea species

Area XIV non-EU

The main species landed by bottom trawl, by Germany and the UK, is Greenland halibut followed by smaller landings of roundnose grenadier and occasional landings of blue ling. Greenland halibut landings have begun to decrease since 2012. Roundnose grenadier landings, which had shown a large increase in 2012, were similar for 2013.

Table 5.9.2.14.1. Top 5 deepwater species landed in ICES Area XIV (non EU). The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
14 NON EU	GHL	L	3498	4546	4426	4298	4535	5044	5087	5041	5823	4469	3475
14 NON EU	RNG	L	42	27	12	18	19	17	27	36	32	1911	1749
14 NON EU	BLI	L	6	7	18			1	77	3	7	3	15

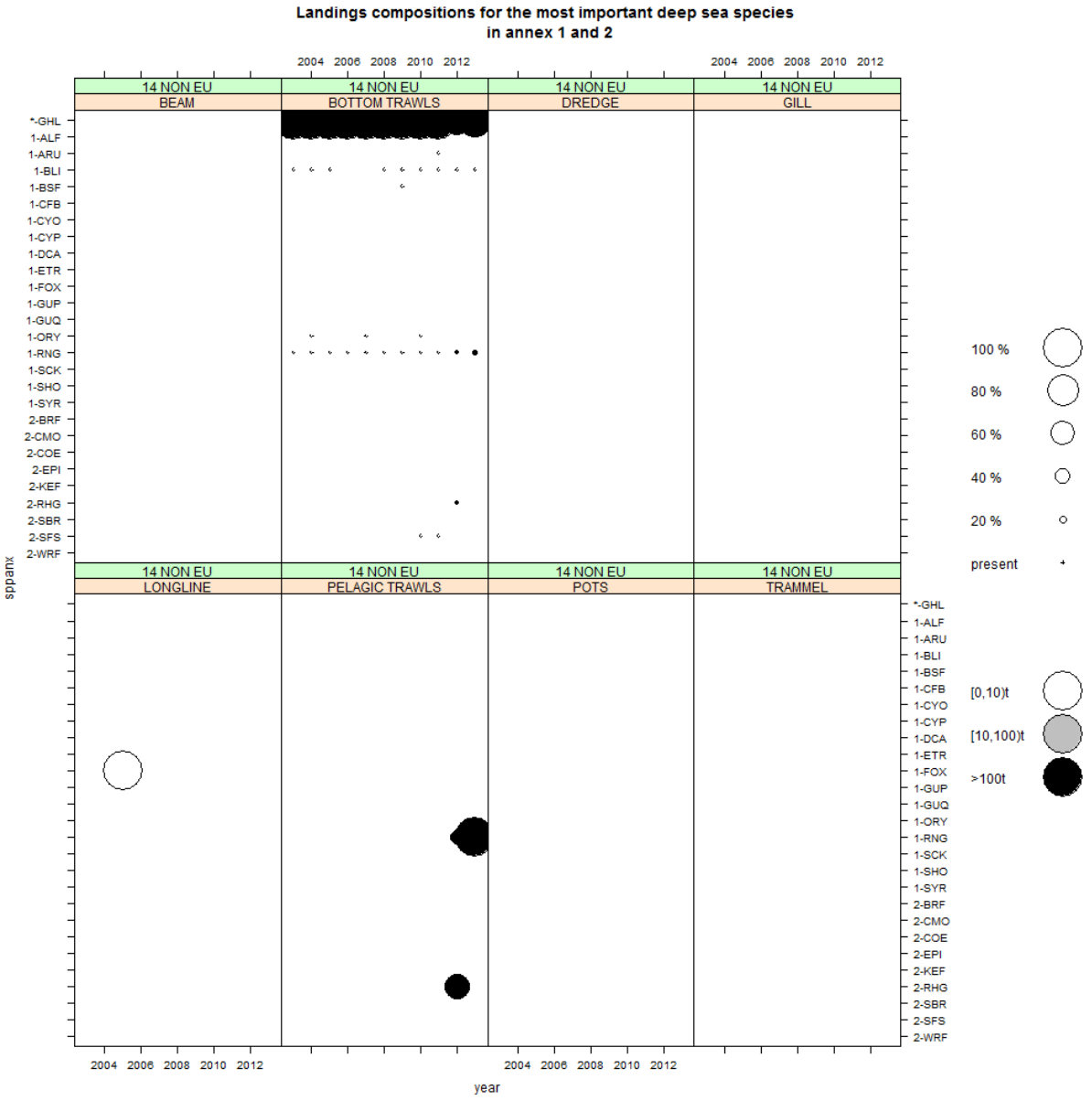


Figure 5.9.2.14.1 Landings of Annex 1&2 Deep Sea species (tonnes) 2003-2013 by gear ICES Area XIV (non EU).

5.9.2.15 Catches in CECAF area 34.1.1 by fisheries and Member States

Deepwater 34.1.1 EU

Regular, small, landings are reported by Portugal, using longline, for Conger eel, Wreckfish and Silver scabbard. In 2013 landings of Silver scabbard were greatest.

Table 5.9.2.15.1. Top 5 deepwater species landed in CECAF Area 34.1.1 (EU). The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
34.1.1 EU	SFS	L						2	4	1			19
34.1.1 EU	COE	L	2		1	16	5	15	15	12		3	3
34.1.1 EU	WRF	L			1	16	6	14	11	3		3	3
34.1.1 EU	SBR	L											2
34.1.1 EU	ALF	L						2	1				0

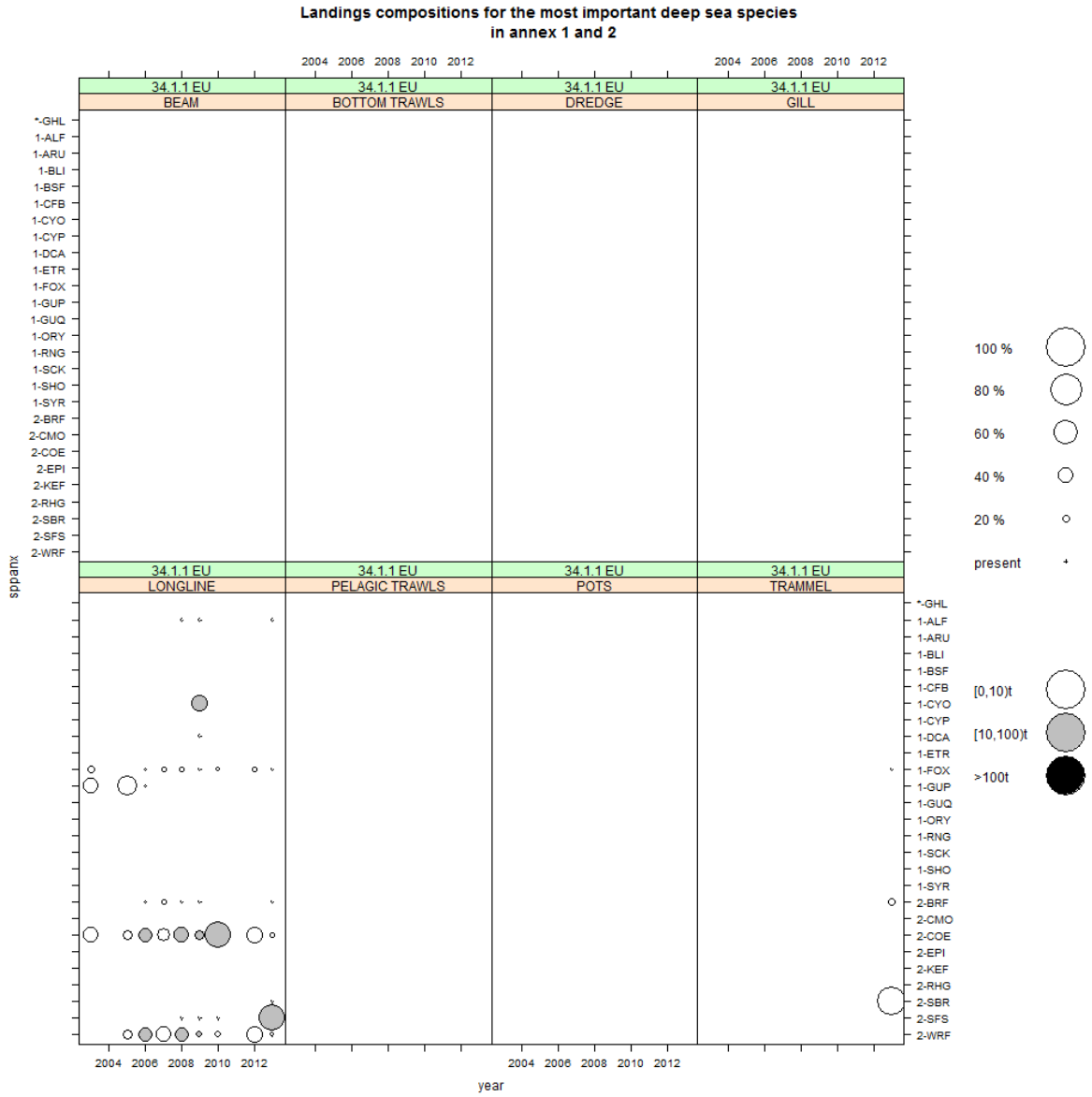


Figure 5.9.2.15.1 Landings of Annex 1&2 Deep Sea species (tonnes) 2003-2013 by gear CECAF Area 34.1.1 (EU).

Western Waters 34.1.1 EU

Spain reported less than 1 tonne of landings of hake for this area for 2013.

In 2013 Spain reported over 600 tonnes of Bigeye tuna as well as smaller landings of Swordfish and Yellowfin tuna for this area using longlines, Table 5.9.2.15.4 and Figure 5.9.2.15.2. Small amounts of mackerel, horse mackerel and other tuna species were also landed.

Table 5.9.2.15.2. Top demersal species landed (tonnes) within CECAF Area 34.1.1 EU, 2003-2013. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
34.1.1 EU	HKE	L											0
34.1.1 EU	COD	L					20						
34.1.1 EU	HAL	L					2						
34.1.1 EU	RED	L					652						
34.1.1 EU	RAJ	L				1	1		1		3		

Table 5.9.2.15.3. Scallop and crab species by gear landed within CECAF Area 34.1.1 EU, 2003-2013. Values are landings in tonnes. The ranking is based according to the last year landings.

No data reported.

Table 5.9.2.15.4. Top pelagic species landed (tonnes) within CECAF Area 34.1.1 EU, 2003-2013. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
34.1.1 EU	JAX	L						1			1		3
34.1.1 EU	MAC	L											2
34.1.1 EU	PIL	L											0
34.1.1 EU	BET	L											609
34.1.1 EU	SWO	L										16	74
34.1.1 EU	YFT	L											41
34.1.1 EU	BFT	L											6
34.1.1 EU	ALB	L											1

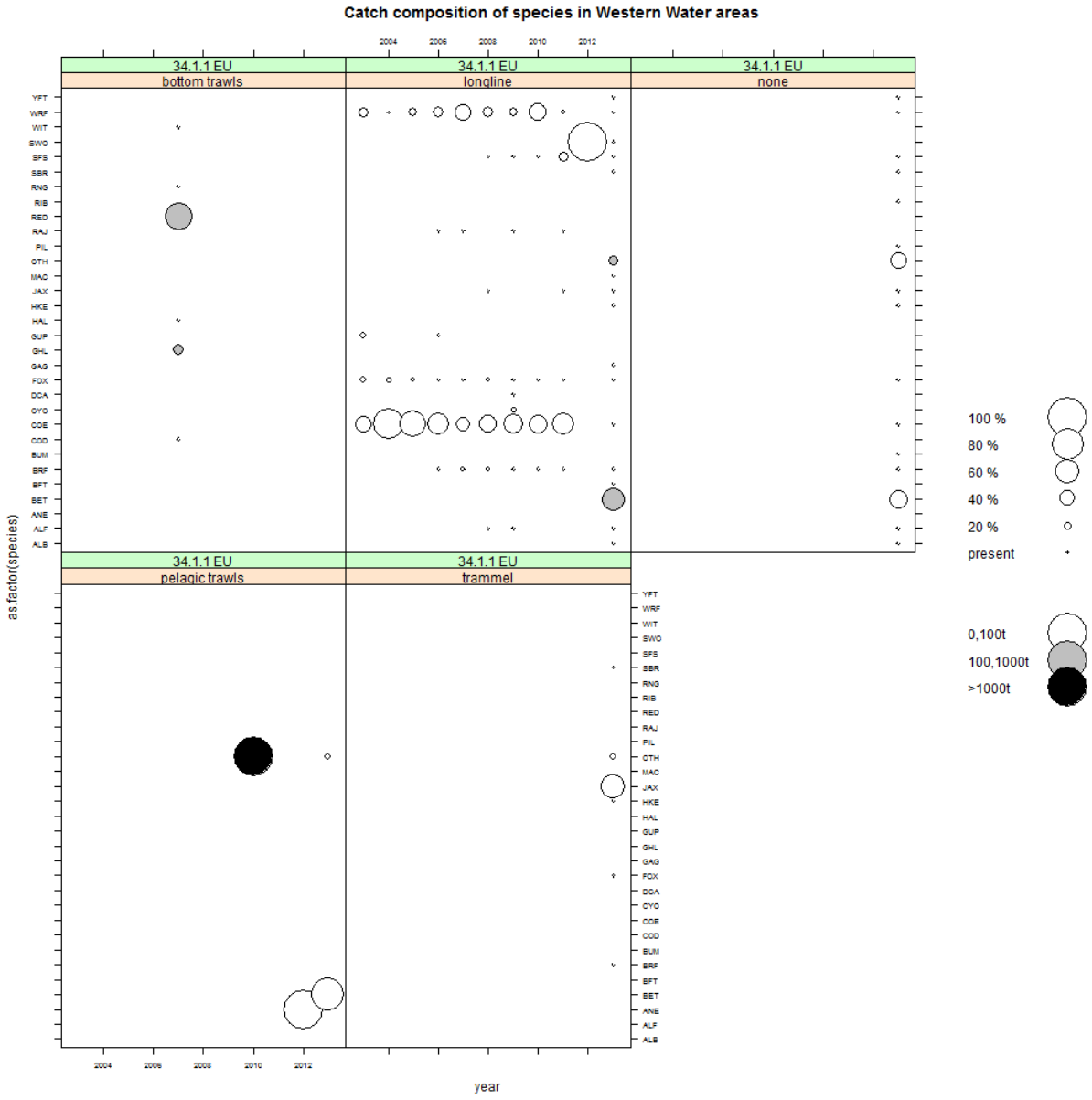


Figure 5.9.2.15.2 Landings composition by gear (countries combined) Western waters CECAF Area 34.1.1 (EU) 2003 - 2013. Size of circles represents relative contribution to landings, shading indicates quantity.

Western Waters 34.1.1 non EU

Spain has reported regular, fluctuating, landings of Anglerfish since 2009. In 2013 it also reported small landings of a number of other species.

Lithuania first reported Mackerel landings from this area from pelagic trawls in 2012. In 2013 mackerel landings increased from 260 to 4800 tonnes, and Lithuania also reported over 18000 tonnes of landings for horse mackerel and over 900 tonnes for Pilchard.

Table 5.9.2.15.5. Top demersal species landed (tonnes) within CECAF Area 34.1.1 non-EU, 2003-2013. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
34.1.1 NON EU	ANF	L											1
34.1.1 NON EU	HKE	L							4	25	1		15
34.1.1 NON EU	LEZ	L											0
34.1.1 NON EU	NEP	L											0
34.1.1 NON EU	RAJ	L						5	1			1	

Table 5.9.2.15.6. Scallop and crab species by gear landed within CECAF Area 34.1.1 non-EU, 2003-2013. Values are landings in tonnes. The ranking is based according to the last year landings.

No data provided

Table 5.9.2.15.7. Top pelagic species landed (tonnes) within CECAF Area 34.1.1 non-EU, 2003-2013. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
34.1.1 NON EU	JAX	L							1				18528
34.1.1 NON EU	MAC	L										262	4834
34.1.1 NON EU	PIL	L											922
34.1.1 NON EU	BFT	L										3	15
34.1.1 NON EU	BET	L											8
34.1.1 NON EU	SWO	L										98	7
34.1.1 NON EU	YFT	L								1			1

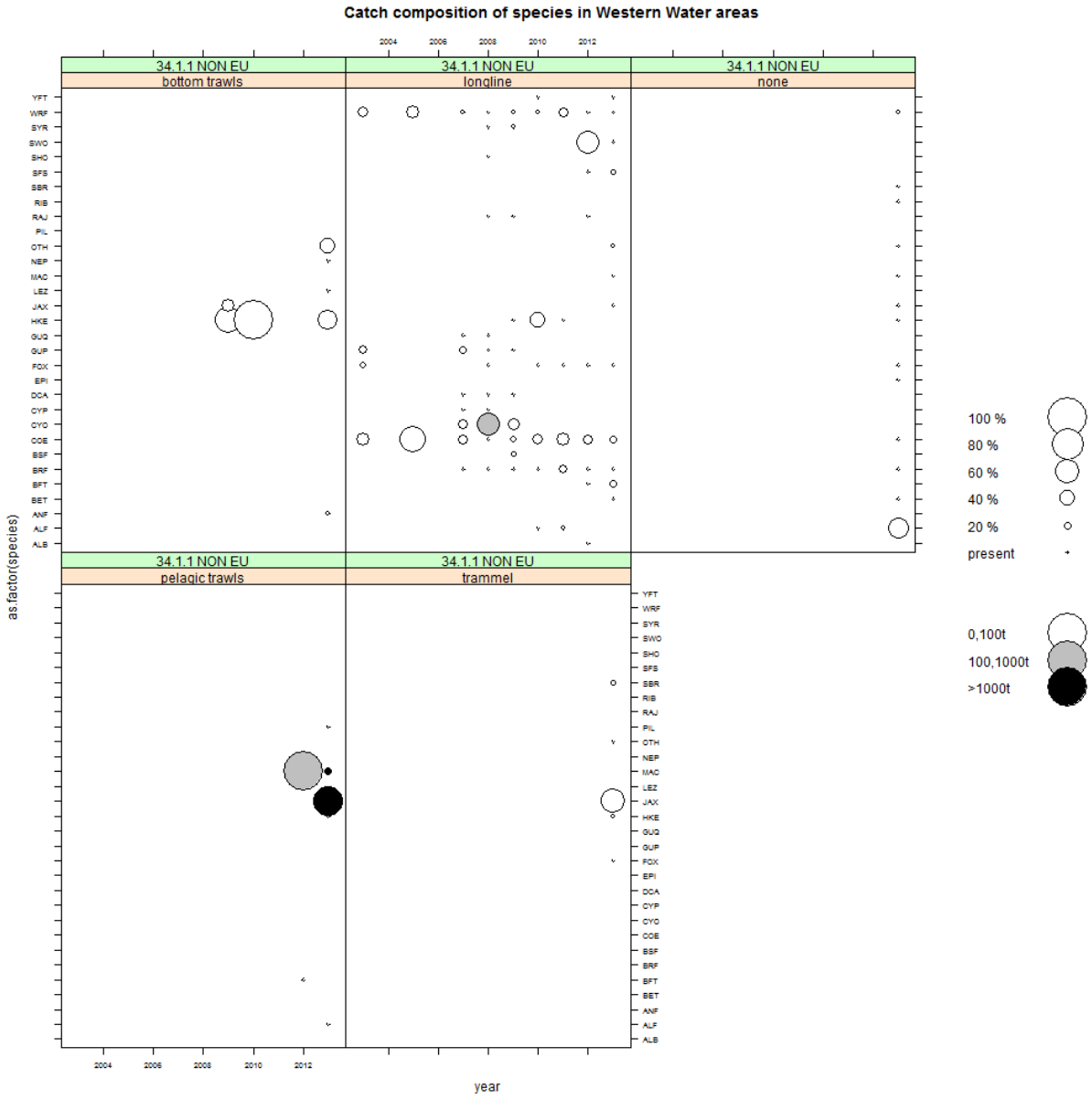


Figure 5.9.2.15.3 Landings composition by gear (countries combined) Western waters CECAF Area 34.1.1 non-EU 2003 - 2013. Size of circles represents relative contribution to landings, shading indicates quantity.

5.9.2.16 Catches in CECAF area 34.1.2 by fisheries and Member States

Deepwater 34.1.2 EU

Portugal has recently resubmitted landings in this area. They also report small landings of Alfonsinos, Conger eel and Wreckfish with minimal landings of Bluemouth redfish and *Mora moro*.

Table 5.9.2.16.1 Top 5 deepwater species landed in CECAF Area 34.1.2 (EU). The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
34.1.2 EU	ALF	L							2	1	9	7	37
34.1.2 EU	WRF	L		4	2	5	11	7	10	2		21	21
34.1.2 EU	COE	L		5	7	8	9	13	14	5	1	21	19
34.1.2 EU	BRF	L										11	8
34.1.2 EU	RIB	L										1	4

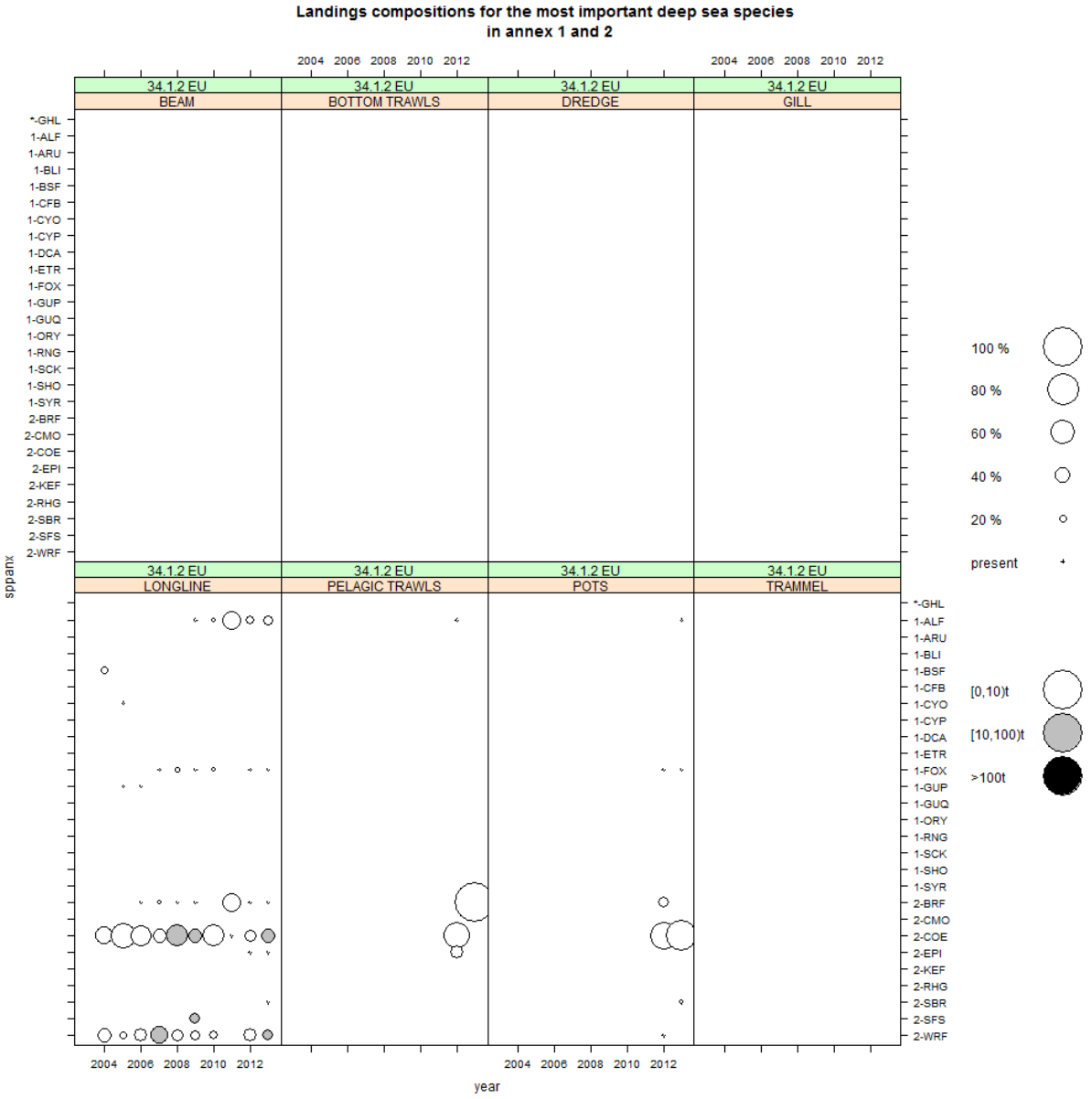


Figure 5.9.2.16.1 Catches of Annex 1&2 Deep Sea species (tonnes) 2003-2013 by gear CECAF Area 34.1.2 (EU).

Western Waters 34.1.2 EU

Spain has reported small landings of a number of demersal species for 2012 and 2013.

In 2012 Spain reported large landings of Albacore and bigeye tuna, with smaller landings of horse mackerel and mackerel. In 2013 landings of the two tuna species decreased by approximately 30% while landings of mackerel and horse mackerel increased. Pilchard landings were reported for the first time in 2013. Landings of Bluefin and Yellowfin tuna increased in 2013 while landings of Swordfish remained constant.

Table 5.9.2.16.2. Top demersal species landed (tonnes) within CECAF Area 34.1.2 EU, 2003-2013. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
34.1.2 EU	HKE	L										3	4
34.1.2 EU	RAJ	L							1		2	4	2
34.1.2 EU	SOL	L										2	2
34.1.2 EU	POL	L										0	0
34.1.2 EU	LEZ	L										0	0

Table 5.9.2.16.3. Scallop and crab species by gear landed within CECAF Area 34.1.2 EU, 2003-2013. Values are landings in tonnes. The ranking is based according to the last year landings.

No data provided.

Table 5.9.2.16.4. Top pelagic species landed (tonnes) within CECAF Area 34.1.2 EU, 2003-2013. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
34.1.2 EU	HER	L										3	2
34.1.2 EU	JAX	L							1			202	420
34.1.2 EU	MAC	L										17	350
34.1.2 EU	PIL	L											231
34.1.2 EU	BET	L										1965	1328
34.1.2 EU	ALB	L										1336	913
34.1.2 EU	YFT	L										39	88
34.1.2 EU	SWO	L										86	85
34.1.2 EU	BFT	L										33	68

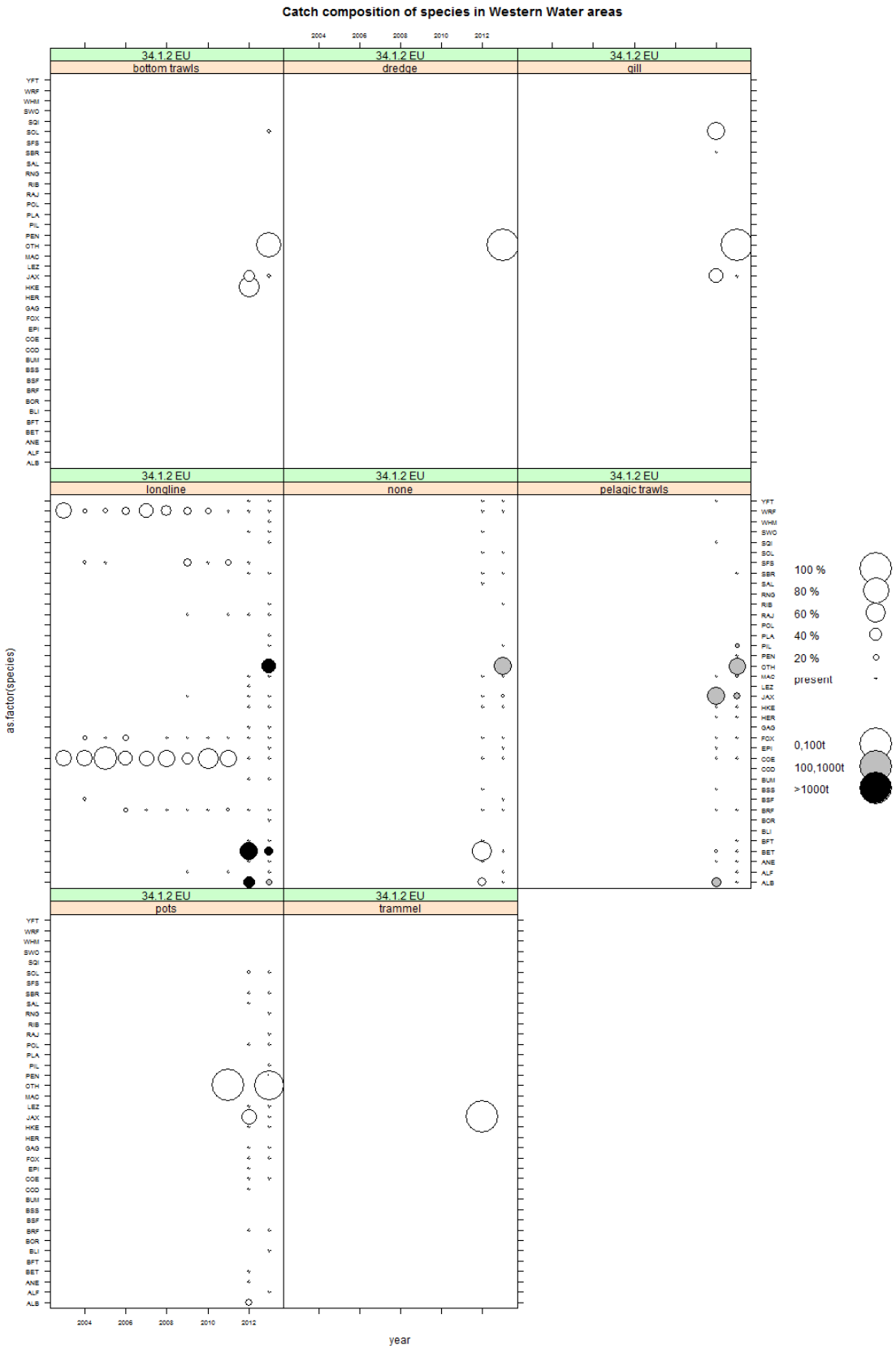


Figure 5.9.2.16.2 Landings composition by gear (countries combined) Western waters CECAF Area 34.1.2 (EU) 2003 - 2013. Size of circles represents relative contribution to landings, shading indicates quantity.

Western Waters 34.1.2 non EU

In 2012 and 2013 Spain reported some landings of Bigeye and Albacore tuna from longlines, as well as small amounts of Mackerel and Swordfish.

Table 5.9.2.16.5. Top pelagic species landed within CECAF Area 34.1.2 (non EU), 2003-2013. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
34.1.2 NON EU	MAC	L										1	3
34.1.2 NON EU	ALB	L											3
34.1.2 NON EU	SWO	L										1	1
34.1.2 NON EU	BET	L										15	1
34.1.2 NON EU	BFT	L											0

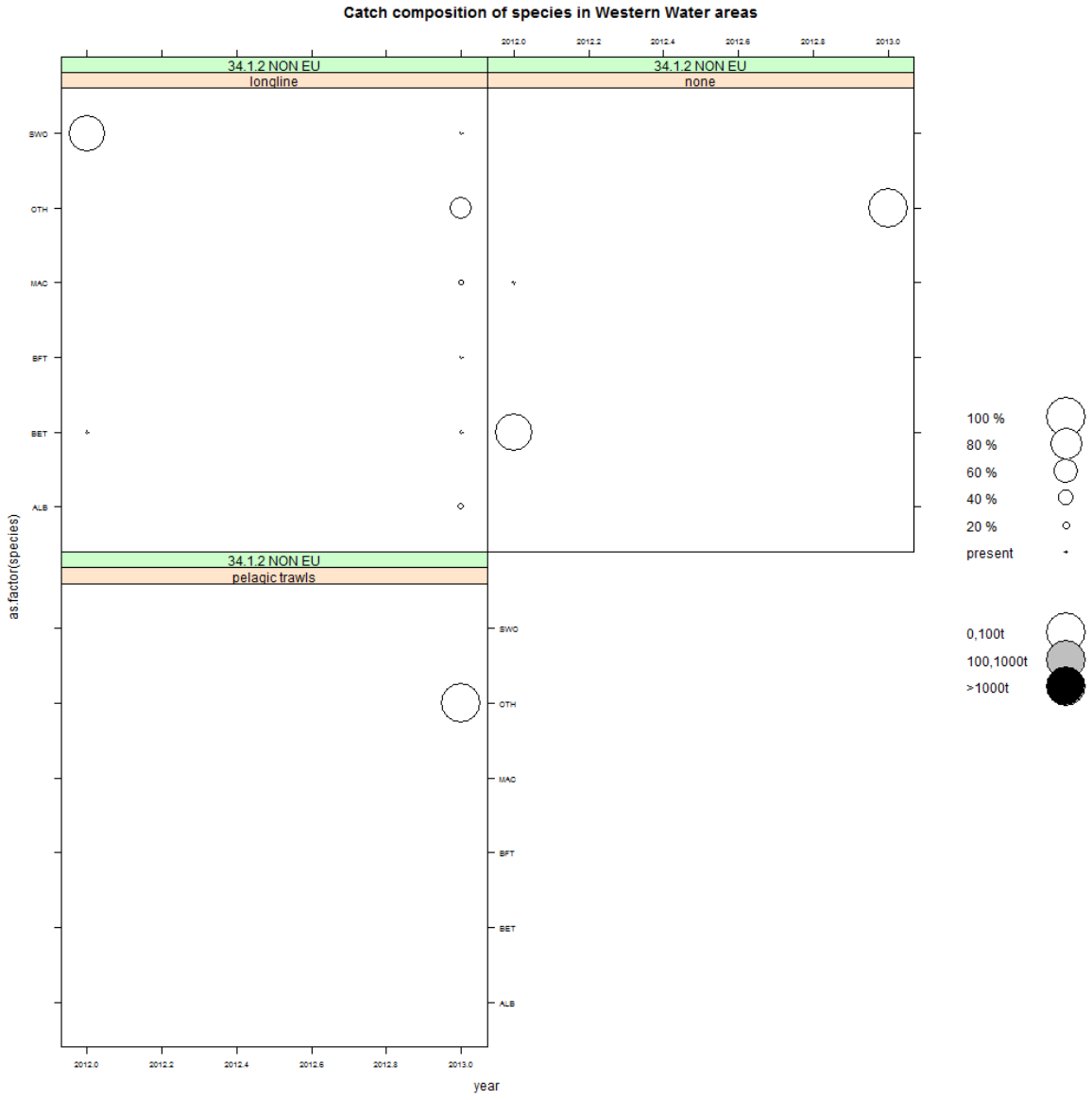


Figure 5.9.2.16.3 Landings composition by gear (countries combined) Western waters CECAF Area 34.1.2 (non EU) 2003 - 2013. Size of circles represents relative contribution to landings, shading indicates quantity.

5.9.2.17 Catches in CECAF area 34.1.3 by fisheries and Member States

Deepwater 34.1.3 non EU

Spain reported small landings for this area for 2012, with larger landings for 2013. All landings were by bottom trawl.

Table 5.9.2.17.1. Top 5 deepwater species landed in CECAF Area 34.1.3 non EU (EU). The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
34.1.3 NON EU	ORY	L										0	27
34.1.3 NON EU	BRF	L										0	16
34.1.3 NON EU	FOX	L										0	0
34.1.3 NON EU	GUQ	L											0

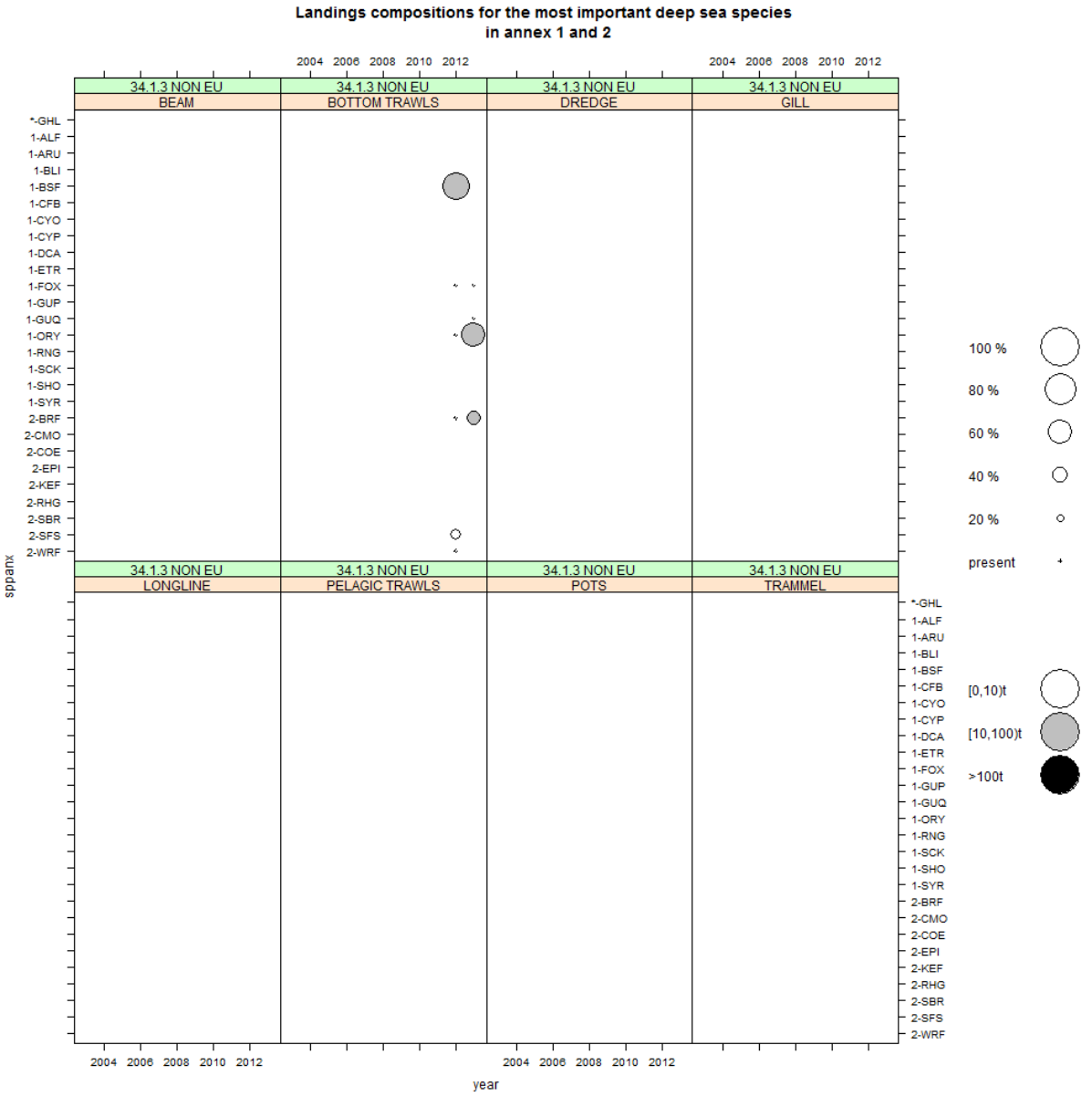


Figure 5.9.2.17.1 Catches of Annex 1&2 Deep Sea species (tonnes) 2003-2013 by gear CECAF Area 34.1.3 (non EU).

Western Waters 34.1.3 non EU

No data was presented for this area.

5.9.2.18 Catches in CECAF area 34.2 by fisheries and Member States

Deepwater 34.2.0 EU

No landings data was reported for this area in 2013

Western Waters 34.2.0 EU

In 2012 and 2013 Spain reported small landings of Swordfish, and Bigeye and Albacore tuna, caught using longlines

Table 5.9.2.18.1. Top pelagic species landed (tonnes) within CECAF Area 34.2.0 EU, 2003-2013. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
34.2.0 EU	SWO	L										36	42
34.2.0 EU	BET	L									2	7	10
34.2.0 EU	ALB	L										0	0

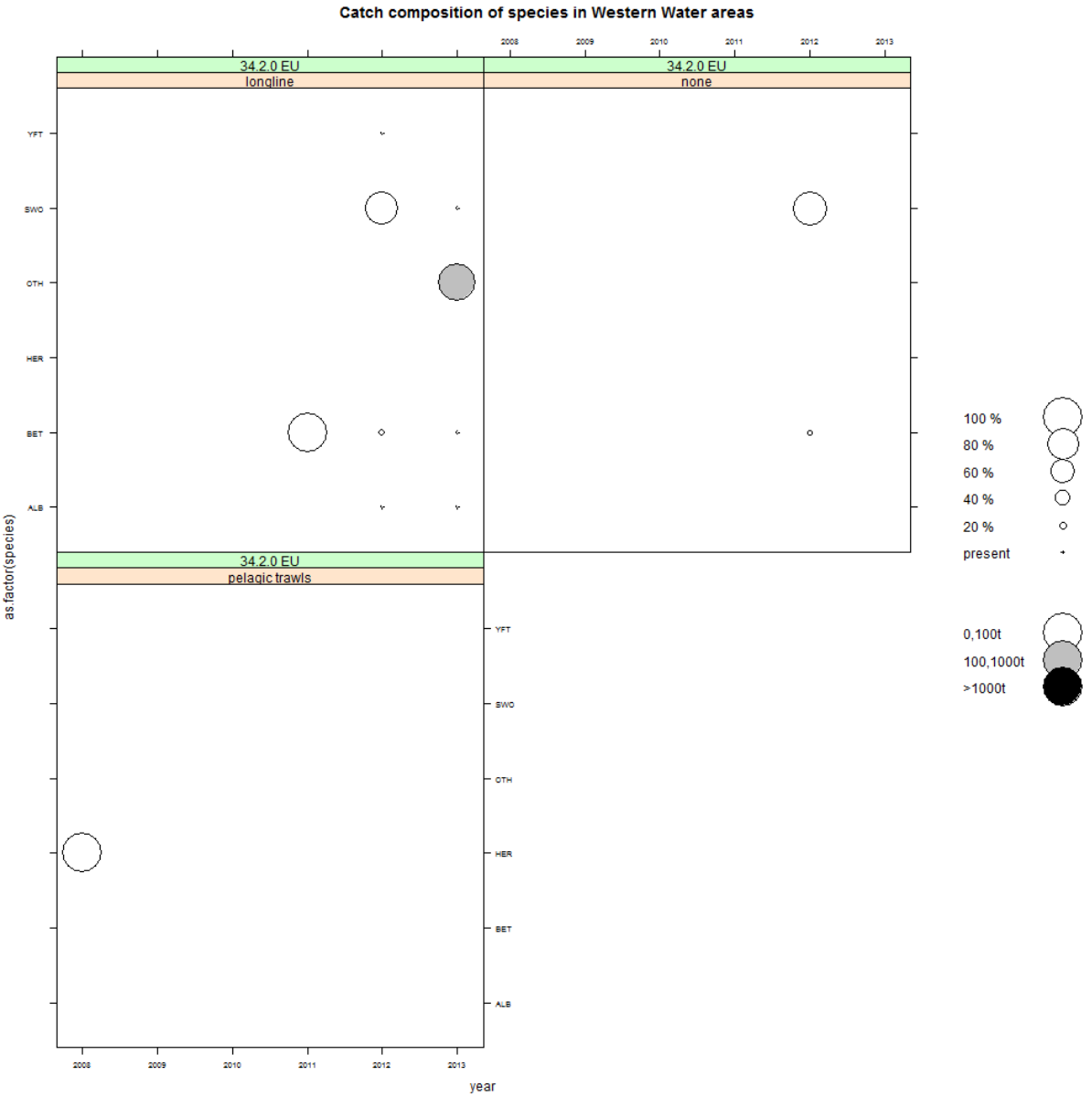


Figure 5.9.2.18.1 Landings composition by gear (countries combined) Western waters CECAF Area 34.2.0 EU 2008 - 2013. Size of circles represents relative contribution to landings, shading indicates quantity.

Deepwater 34.2.0 non EU

Portugal submitted small landings in this area for 2012 and 2013, with Spain reporting some landings for 2013, all using longline.

Table 5.9.2.18.2 Top 5 deepwater species landed in CECAF Area 34.2 (non EU). The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
34.2.0 NON EU	COE	L										12	7
34.2.0 NON EU	WRF	L										7	5
34.2.0 NON EU	BRF	L										7	1
34.2.0 NON EU	FOX	L										1	0
34.2.0 NON EU	ALF	L											0

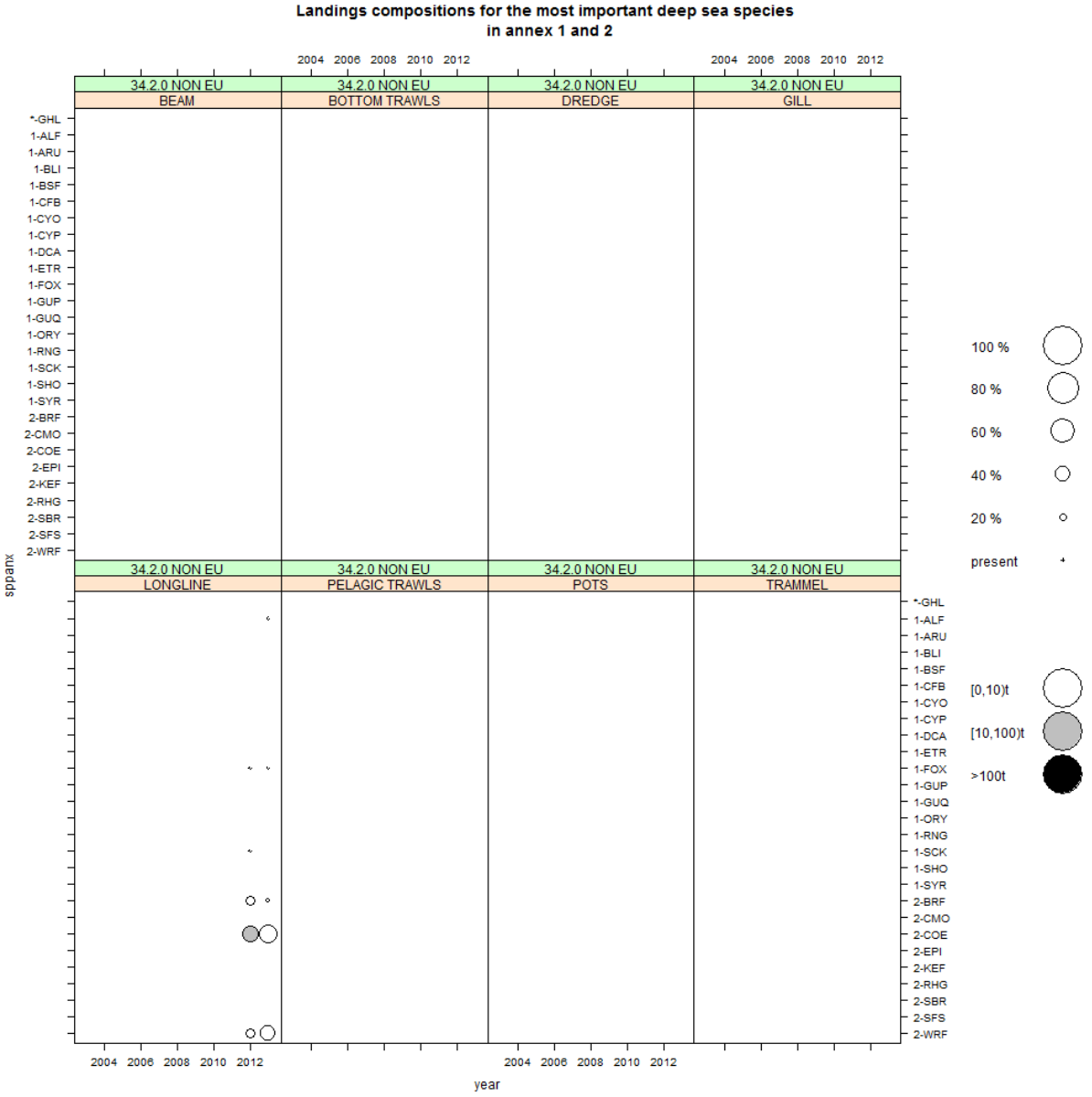


Figure 5.9.2.18.2 Catches of Annex 1&2 Deep Sea species (tonnes) 2003-2013 by gear CECAF Area 34.2.0 (non EU).

Western Waters 34.2.0 non-EU

Small landings of demersal fish have been reported by Spain for 2013

In 2012 and 2013 Spain reported landings for Swordfish and other tuna species caught using longlines. In 2013 they also reported less than 1 tonne for Blue whiting.

Table 5.9.2.18.3. Top demersal species landed (tonnes) within CECAF Area 34.2.0 non-EU, 2003-2013. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
34.2.0 NON EU	RAJ	L								4		3	1
34.2.0 NON EU	HKE	L											0
34.2.0 NON EU	ANF	L											0
34.2.0 NON EU	LEZ	L											0
34.2.0 NON EU	NEP	L											0

Table 5.9.2.18.4. Scallop and crab species by gear landed within CECAF Area 34.2.0 non-EU, 2003-2013. Values are landings in tonnes. The ranking is based according to the last year landings.

No data provided

Table 5.9.2.18.5. Top pelagic species landed (tonnes) within CECAF Area 34.2.0 non-EU, 2003-2013. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
34.2.0 NON EU	WHB	L											0
34.2.0 NON EU	SWO	L			5							603	496
34.2.0 NON EU	BET	L			1							53	143
34.2.0 NON EU	YFT	L										10	53
34.2.0 NON EU	ALB	L										0	3

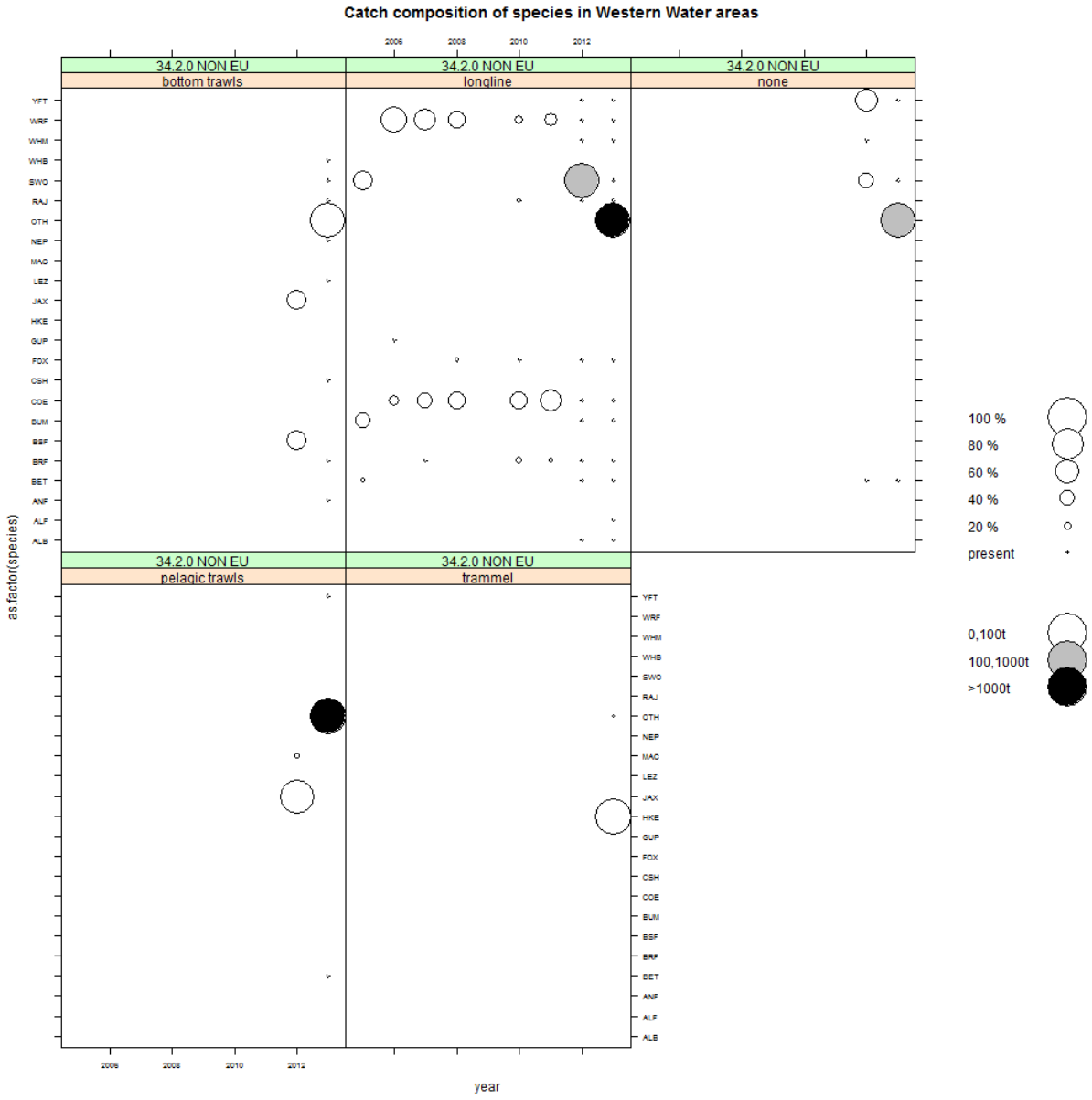


Figure 5.9.2.18.3 Landings composition by gear (countries combined) Western waters CECAF Area 34.2.0 non-EU 2003 - 2013. Size of circles represents relative contribution to landings, shading indicates quantity.

5.9.3 ToR 1c CPUE and LPUE (landings and discards) by area

The LPUE and CPUE tables by gear groups (regulated and unregulated), area and nation have not been included in this section of the report, due to their large size in some areas. Instead the full tables are available on the JRC website: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1413. The tables included in this ToR are prepared using the top 5 deepwater species in the Deepwater section and the top 5 demersal species in the Western waters section. Some of the tables presented in this section need to be treated with caution due to the fact that Spain has not provided data for 2010 and 2011. This will mainly affect information from ICES area VIII south to CECAF 34.2.0, areas where Spain is one of the main participants.

5.9.3.1 CPUE and LPUE in ICES area I by fisheries and Member States only linked to Deep Sea species

France reported CPUE and LPUE data for 2012 and 2013 for Greenland halibut. The data series only started in 2012 preventing any type of analysis. Target species are not expected to be discarded so CPUE and LPUE values are similar.

5.9.3.2 CPUE and LPUE in ICES area II by fisheries and Member States only linked to Deep Sea species

II EU

Very limited discards data are available for deepwater stocks in Area II EU, therefore CPUE and LPUE tables show the same values. Data for Greenland halibut from bottom trawls fluctuates through the time series, as does Blue ling, albeit at lower levels. Data for the other species is patchy.

II non-EU

There is patchy CPUE and LPUE data relating to Greenland halibut available for area II non-EU from 2003 and data for Bluemouth redfish only in 2013.

5.9.3.3 CPUE and LPUE in ICES area III by fisheries and Member States only linked to Deep Sea species

III EU no Baltic

Very limited CPUE and LPUE data are available for deepwater stocks in Area III no Baltic. All the data relates to bottom trawls. CPUE for Roundnose grenadier increased markedly up to 2006. Data was reported again between 2009 and 2011for Roundnose grenadier, but at a much lower level than previously. CPUE data for blue ling ceased in 2006 bar one report in 2011. Differences are noted between CPUE and LPUE in certain years for *Chimaera monstrosa*, in particular 2003, 2006, 2009 and 2011. In 2012 data were reported for Black scabbard. There is no effort or catch data submitted for this area for 2013.

5.9.3.4 CPUE and LPUE in ICES area IV by fisheries and Member States only linked to Deep Sea species

CPUE and LPUE data for deepwater stocks in Area IV relates primarily to bottom trawls. CPUE and LPUE data for Greater argentine are very patchy post 2006, although data has been reported again in the last two years. CPUEs for Blue ling have decreased since the start of the time series, apart from a small spike in 2010, and are now at very low levels. Conger eel is targeted by bottom trawl although

data is also presented for longlines for 2009 and 2010. Data for Greenland halibut, primarily from bottom trawls, have fluctuated through the time series. CPUEs and LPUEs for Forkbeards fluctuate at low values over the time series.

5.9.3.5 CPUE and LPUE in ICES area V by fisheries and Member States

V EU

Deepwater

CPUEs were highest for bottom trawls, targeting Blue ling, Roundnose grenadier, Greenland halibut, Black scabbard and, from 2010 onwards, *Chimaera monstrosa*. Effort for beam and pelagic trawls ceased in 2004 and for gill nets in 2009.

CPUEs for Blue ling were stable through the time series but increased greatly from 2011 onwards. A similar increase was recorded for Black scabbard. Roundnose grenadier figures increased up to 2010 before dropping rapidly and have fluctuated at lower levels since. Greenland halibut levels have decreased since 2011. CPUEs and LPUEs have been reported for *Chimaera monstrosa* since 2010.

Western Waters

CPUEs and LPUEs in the western waters of area V EU were highest for bottom trawls, although the largest LPUE values recorded are for anglerfish caught by gill nets. However no information has been reported for this since 2009.

France is the main provider of data since 2005. Anglerfish CPUEs increased in the last three years but are fluctuating since. CPUEs for Saithe and Redfish peaked in 2012 and dropped again in 2013. Values for Ling and Tusk are still on the increase, although Ling values are very low. France reported data from Gill nets for Ling and Saithe for 2012.

V non-EU

Deepwater

Once again CPUEs in area V non-EU were highest for bottom trawls. In 2003 and 2004 high CPUEs were presented for beam trawl but it is quite possible that this should be reclassified as bottom trawl. No information has been reported since 2010 apart from bottom trawl for Greenland halibut and small effort for Roundnose grenadier. Values for Greenland halibut increased between 2007 and 2009 but have fluctuated in recent years. Those for Roundnose grenadier were consistent up to 2010 but have decreased to low levels since.

Western waters

CPUEs and LPUEs in the western waters of area V non EU were mainly by France and Scotland. Scottish data ceased in 2010 and France in 2011. Bottom trawls are the main gear used.

LPUEs for saithe fluctuated through the time series before reaching a peak in 2006; however they have been in decline since. In 2012 France reported very high CPUEs, but they weren't repeated since. Bottom trawls for cod peaked in 2009 and are in serious decline since. CPUE data for Ling and Redfish were last reported in 2011. The only data for 2013 was reported by Germany for Wolffish caught using bottom trawl.

5.9.3.6 CPUE and LPUE in ICES area VI by fisheries and Member States

VI EU

Deepwater

Once again bottom trawl is the dominant method used in this area.

CPUEs for blue ling have been very stable through the time series with a peak occurring in 2009, and similar values reported for 2013. Those for roundnose grenadier declined up to 2006 but have been relatively stable since. CPUEs for black scabbard have been increasing slowly since 2004. CPUEs for Forkbeards were stable through the time series but increased fivefold in 2013.

CPUEs for greater argentine caught by pelagic trawl have increased greatly in the last three years.

Once again it is quite possible that beam trawl effort in 2003 and 2004 should be reclassified as bottom trawl.

Western Waters

Some discard information is available for this area. Discarding appears to take place in the bottom trawl fleet for anglerfish, haddock, hake and saithe.

For anglerfish gill net CPUEs are showing an increasing trend, particularly in the last three years, while bottom trawl figures which were stable at a lower level have also begun to increase since 2010.

Haddock bottom trawl CPUEs have been in decline since a peak in 2010. Ireland and Scotland are the main countries fishing the stock.

Longline CPUEs for hake are increasing. Spain and England reported high CPUEs for longlining in 2012 and 2013. CPUEs for bottom trawls were stable up to 2011 but have shown a large increase in the last two years, due to new data from Spain. Gill nets have been stable at lower levels since 2007.

CPUEs for saithe caught in bottom trawls peaked in 2009 and have been in decline since. CPUEs for gill nets peaked in 2010 and have since dropped by 60%. CPUEs from longlines started from a very low base but showed a major increase in 2013.

Nephrops CPUEs reached a peak in 2008 but seem to have stabilised at a lower level in the last three years. Data from pots, mainly reported by Scotland, has been stable through the time period.

VI non-EU

Deepwater

Bottom trawls are the major gear used in this area. Data for gill nets ceased in 2007 and for longlines in 2004. No CPUE data for bottom trawl was reported between 2006 and 2012. Data has been reported in the last two years however for *Alepocephalus bairdii*, Black scabbard, Silver scabbard, Roundnose grenadier and *Chimaera monstrosa*.

Western waters

Scotland is the main country fishing this area, with bottom trawls being the main gear used. CPUE data from gill nets stopped in 2009.

CPUEs for Anglerfish peaked in 2007 but dropped by about 80% once gill netting stopped in 2009. They were very stable between 2010 and 2012 before increasing again in 2013. Spain reported data for the last two years. Haddock CPUEs from Scottish bottom trawls have fluctuated greatly through the time series. CPUEs for Megrim spp were on a downward trend before Spain reported data for 2012 and 2013. Ling CPUEs were relatively stable in recent years before increasing in 2013.

5.9.3.7 CPUE and LPUE in ICES area VII excluding VIId by fisheries and Member States

VII EU no VIId

Deepwater

Bottom trawls provide the main data in this region, followed by gill nets and longlines. In 2012 there were major increases reported for Bluemouth redfish by Spain, and Conger eel by Spain and Scotland. These levels reduced in 2013 but there was a large increase in CPUE for Forkbeard landed by France.

Longline CPUEs increased for the top 5 species in 2013, but especially for Forkbeards. Increased CPUEs for Forkbeards were also reported for Gill nets, while the other species were at low levels.

Western Waters

Some discard information is available for this area. Discarding appears to take place in the bottom trawl fleet for haddock and hake, with a small amount for anglerfish also.

For anglerfish gill net and bottom trawl CPUEs show an increasing trend, although bottom trawls are at a lower level. Beam trawl CPUEs reached a peak in 2009 but have stabilised at a lower level since. Trammel net CPUEs have fluctuated through the time series with 2013 being the highest.

Haddock bottom trawl CPUEs were stable to 2008, before increasing. CPUEs dropped again in 2013. Beam trawl CPUE increased between 2008 and 2011, but have reduced since.

Gill net CPUEs for hake increased rapidly between 2008 and 2010. Values dropped again in 2013 but they are still the second highest of the time series. Longline CPUEs have increased rapidly since 2011. CPUEs for bottom trawls were stable at low levels, but have begun to increase in the last two years.

Nephrops CPUEs had been increasing slowly before a large peak in 2009. Data for the last two years have been very stable

VII non-EU

Deepwater

CPUE data in this area is limited to *Beryx* spp. in 2013

Western waters

There is no data

5.9.3.8 CPUE and LPUE in ICES area VIId by fisheries and Member States

VIId

Deepwater

There is limited CPUE data from this area. In the last number of years it relates primarily to bottom trawling for red (blackspot) seabream.

Western waters

Some discard information is available for this area. Discarding appears to take place in the bottom trawl fleet for dab, plaice and whiting. There is also some discarding in beam trawls for dab, plaice and common sole.

Beam trawl CPUEs for Plaice show an increasing trend. Bottom trawl data show a spike in 2010, with an upward trend in the last three years. Trammel net figures decreased to 2009 but have been increasing since.

Beam trawl CPUEs for common Sole decreased between 2003 and 2005 but have stabilised since. Bottom trawl data has been stable for the last four years after a large decrease in 2010. Gill net CPUEs began decreasing in 2010 and are now at very low levels. Trammel net figures, which had been in decline, increased between 2010 and 2013.

Dab bottom trawl CPUEs were stable up to 2009. This increased greatly in 2010 and the data have been fluctuating since. Beam trawl CPUEs have been stable since 2010.Trammel net CPUEs are increasing in recent years from a low base.

Bottom trawl CPUEs for whiting increased between 2009 and 2012 before dropping slightly again in 2013.

CPUEs for Seabass have fluctuated through the time series. CPUEs for 2013 are much higher than the previous four years. Bottom trawl is the most important gear used followed by gill nets, longlines and pelagic trawls. Bottom trawl and gill net data have fluctuated while longline and pelagic CPUEs have been more stable.

5.9.3.9 CPUE and LPUE in the Biologically Sensitive Area by fisheries and Member States

BSA

Western waters

There is no discard information is available for this area.

Gill net CPUEs were quite stable in the early part of the time series but have fluctuated greatly in recent years. In 2012 CPUE more than doubled but decreased again by 50% in 2013. Bottom trawl had the second largest CPUEs, being stable from 2004 to 2007, and increasing gradually since then. Longlines recorded low CPUEs at the start of the series but have become more important recently, with very high values reported in the last two years. Beam trawl and trammel nets CPUEs are quite low but increasing in recent years.

Beam trawl, bottom trawl, gill nets and trammel nets provide CPUEs for Anglerfish. In the early years of the series bottom trawls came second to trammel nets, but in recent years they produce the highest CPUEs. Figures for trammel nets fluctuated through the time series but have been relatively stable for the last three years. Bottom trawl CPUEs are on the increase in the last three years. Beam trawl figures have also increased steadily since the start of the series. Gill net figures are stable at lower levels.

Bottom trawls provide the highest CPUEs for haddock. Figures have fluctuated through the time series. Beam trawls and gill nets also provide increasing CPUEs, but at much lower levels.

Gill nets produced the highest CPUEs for hake, increasing slowly through the time series. There was a large spike in the CPUE data in 2012, due to Spanish data, but this had dropped again somewhat in 2013. Longline effort has also become very important, starting from a very low base, particularly in 2012 and 2013. Bottom trawls are a small but increasing source of effort.

Beam and bottom trawls both provide increasing CPUEs for megrim, with bottom trawls providing the higher values.

The greatest CPUEs for Whiting come from bottom trawls. Values have fluctuated through the time series.

5.9.3.10 CPUE and LPUE in ICES area VIII by fisheries and Member States

VIII EU

Deepwater

The highest CPUEs for Conger eel are provided by longlines. Figures are relatively stable bar 2009 and 2011. In 2012 and 2013 60% of this Spanish data is assigned to Pots. Bottom trawls and trammel nets provide increased effort in 2012 and 2013.

The importance of CPUEs from bottom trawls and gill nets for bluemouth redfish had been replaced in recent years by longlines. In 2012 and 2013 however Spanish gill nets once again provided the highest values.

CPUE data for forkbeard is mainly provided by Spain. No data had been reported between 2010 and 2012 but some data was supplied again for 2013.

CPUE data for Red seabream from bottom trawls and longlining has been reported for 2012 and 2013.

Western Waters

There is discard information is available for this area.

Longline CPUEs increased between 2006 and 2009, and have fluctuated since. Gill net figures were stable in the early part of the time series, but began to increase from 2010. Bottom trawl CPUEs increased greatly between 2009 and 2011. The figure dropped greatly in 2012 but values for 2013 are back up at 2010 values. Trammel net CPUEs decreased between 2003 and 2010 but have begun to increase again since. Beam trawl CPUEs have fluctuated through the time series.

Gill nets produce the highest CPUEs for Anglerfish. Values have been fluctuating, but increasing, since 2007. Bottom trawl CPUEs were stable before increasing greatly in 2011 and 2012. Values reduced again in 2013. Beam trawl information is quite stable but showing an increase in the last two years. CPUEs for trammel nets were at very low values in recent years, but in 2013 increased to the second highest value in the time series.

Gill net CPUEs for Hake increased greatly between 2006 and 2012, but decreased again in 2013. Bottom trawl and longlines are the next most important fishing methods. Bottom trawl CPUEs peaked in 2010 and have been dropping since, while those for longlines were relatively stable between 2007 and 2012 before showing an increase in 2013.

Bottom trawl is the main fishery for *Nephrops* and CPUEs were stable through the time series, apart from high values in 2011 and 2012 which were attributable to Ireland.

CPUEs for Megrim from bottom trawl have been increasing slowly, from a low base, in recent years.

Sole CPUEs for trammel nets have been in decline through the time series while those for beam trawl have been stable, bar a large peak in 2011 attributable to France.

VIII non-EU

Deepwater

No data has been supplied for this area since 2008.

Western waters

Limited data was provided by France for this area in 2011 for Anglerfish using bottom trawl, and Hake using bottom trawl and gill nets. In 2013 Spain provided longline data for Hake.

5.9.3.11 CPUE and LPUE in ICES area IX by fisheries and Member States

IX EU

Deepwater

The highest CPUE values for this area are provided by Portugal for Black scabbard using longlines. Values had increased steadily up to 2011 but have been in decline since. Conger eel CPUEs by Spain using longlines have fluctuated greatly since 2006. Spain has also reported high CPUEs for this species from Pots in 2012 and 2013, and Trammel nets in 2013. Spain regularly reports CPUE data for Bluemouth redfish from Longlines, but in 2012 and 2013 also reported it for Bottom trawls and Gill

nets. Spain reported high CPUE data for Red seabream in the last two years primarily using Pelagic trawls and a lesser extent for Gill nets.

Western Waters

In recent years gill net CPUEs have been the highest, followed by bottom trawl and trammel nets. Gill net CPUEs increased up to 2008 before reducing again. Values are on the increase again in the last two years. Bottom trawl CPUEs reached a peak in 2009 before suffering a major slump in 2010. Values have fluctuated since. This slump may influenced by the lack of Spanish data for 2010 and 2011. Trammel net CPUEs increased up to 2010 before dropping again in 2011. Values have increased since then with 2013 being the highest of the time series. Longline CPUEs reached a peak in 2011 and have been dropping since. Beam trawl CPUEs peaked in 2008 and are at low values since.

Anglerfish CPUEs are quite similar for bottom trawl and gill and trammel nets. Values for all three peaked in 2007and are in decline since. There was a small increase in values for trammel nets in 2012 and for gill nets in 2013.

Bottom trawl, gill nets and longlines are the most important gears for Hake. Gill net CPUEs peaked in 2008 and the other two in 2011. Trammel net CPUEs have been increasing in the last number of years and are now higher than for longlines.

Trammel net CPUEs for Sole peaked in 2007. They subsequently dropped by approx. 60% but are relatively stable since. Megrim CPUEs are very low and are from bottom trawl. CPUEs for Ray species are mainly from trammel nets. Values increased up to 2009 before dropping again. CPUEs increased in 2013 to the highest value in the time series.

IX non-EU

Deepwater

Portugal reported Longline CPUE data for Conger eel up to 2011, but has reported nothing since. The only data reported for the last two years is for Bluemouth redfish by Spain using Bottom trawls.

Western waters

There is very little data for this area post 2005. Spain reported some data in 2012 and 2013for Anglerfish, Hake and *Nephrops* using bottom trawls.

5.9.3.12 CPUE and LPUE in ICES area X by fisheries and Member States

X EU

Deepwater

CPUE values for Red seabream in this area peaked in 2009 but appear to have stabilised at a lower level since. Conger eel, Bluemouth redfish and Silver scabbard CPUEs from Portuguese longlines have been increasing steadily since the start of the time series.

Western Waters

The only data reported for this area was by Spain, in 2012, for Hake using gill nets.

X non-EU

Deepwater

CPUE data from this area is quite limited with none being reported since 2009

Western waters

CPUE data for this area is very sparse. Data was supplied by France, in 2011 for Sole caught using gill nets, and 2012 for Whiting using bottom trawl. Portugal supplied data for 2009 for Ray species using longline.

5.9.3.13 CPUE and LPUE in ICES area XII by fisheries and Member States only linked to Deep Sea species

XII non-EU

Deepwater

Spain is the major provider of information for this area since 2007. Bottom trawl CPUE data for Roundnose grenadier fluctuated through the time series, but is showing an upward trend in the last two years, driven primarily by Pelagic trawling by Spain. In the last two years Spain has also reported information for *Alepocephalus bairdii*, Blue ling, Greenland halibut and Silver scabbard, all from Bottom trawl.

5.9.3.14 CPUE and LPUE in ICES area XIV by fisheries and Member States only linked to Deep Sea species

XIV non-EU

Deepwater

CPUE data for Greenland halibut from Germany and England was reasonably stable through the time series. This data is showing a decrease in the last two years, mainly due to a large drop in German catches. Spain has reported high values for Roundnose grenadier since 2012 caught using Bottom and Pelagic trawls.

5.9.3.15 CPUE and LPUE in CECAF area 34.1.1 by fisheries and Member States

CECAF 34.1.1 EU

Deepwater

CPUE data from Portugal is presented for Conger eel and Wreckfish using longline. Both trends have been decreasing in recent years. Spain reported data for Conger eel, Red seabream and Silver scabbard in 2013.

Western Waters

There is no CPUE data for this area since 2011 when Portugal reported data for Ray species caught using longlines.

CECAF 34.1.1 non-EU

Western waters

Spain reported CPUE data for Anglerfish and Hake, using bottom trawls, in 2013.

5.9.3.16 CPUE and LPUE in CECAF area 34.1.2 by fisheries and Member States

CECAF 34.1.2 EU

Deepwater

Portugal reports CPUE data for *Beryx* spp, Bluemouth redfish, Conger eel and Wreckfish, all caught from longlines. The data has fluctuated for all species through the time series. Spain reported data on Conger eel from Pots and Wreckfish from longlines in 2013.

Western Waters

Very little CPUE data is available for this area. Spain reported small amounts for 2013 for Hake using longline and Sole using pots. Portugal supplied data for Ray species caught using longline. This data has been fluctuating at low levels for the last three years.

5.9.3.17 CPUE and LPUE in CECAF area 34.1.3 by fisheries and Member States

CECAF 34.1.3 non EU

Deepwater

Spain reported CPUE data for 2013 for Bluemouth redfish and Orange roughy from bottom trawls.

Western waters

No data reported for this area

5.9.3.18 CPUE and LPUE in CECAF area 34.2 by fisheries and Member States

CECAF 34.2.0 EU

Deepwater

All data reported from this area is by Portugal. No data was reported for 2013. In 2012 Portugal reported data for Red seabream, Silver scabbard and Wreckfish, all caught using longlines.

Western waters

There is no data for this area.

CECAF 34.2.0 non-EU

Deepwater

Portugal reported data for this area for 2012 and 2013, with Spain reporting data in 2013. Portuguese data for Bluemouth redfish, Conger eel and Wreckfish decreased in 2013. Spain reported data for Bluemouth redfish and Conger eel.

Western waters

There is little information for this area. Portugal has supplied data for Ray species, caught using landlines, since 2010. The values are decreasing year on year.

5.9.4 ToR 2 Extent to which linking VMS and logbook data could improve the accuracy and precision of Deep Sea and Western Waters fisheries effort and catch estimation

In principle, the linking of Vessel Monitoring Systems (VMS) data with logbook data would improve current information available for the spatio - temporal mapping of fishing grounds and landings, to act as the basis for management decisions. Analysis of integrated VMS and logbook data will allow fisheries data to be analysed on a considerably finer spatial scale than was possible previously: Logbook declarations are made at ICES statistical rectangle spatial scale (squares of approximately 30

× 30 nm) while VMS data are not associated with any spatial scale. Fine-grained VMS data enable obvious improvements to describe used areas and spatial fishing pressure with higher resolution than the ICES rectangles. Since fishing depth data may not be regularly recorded by vessel logbooks it could be possible to estimate depth from VMS data. As the logbook data are collected on a different temporal scale from VMS data however, there are difficulties linking both datasets, currently making it impossible to match all the records (Gerritsen and Lordan, 2011). This step is particularly important, as all subsequent analyses depend on the success of this linkage to avoid mismatching records. Linking VMS tracks with logbooks is mainly used to more accurately allocate the effort to the type of fishing gear used (Bastardie *et al*. 2010) and the VMS-logbook connection could be exploited to distribute catches from logbooks at the much higher spatial (and probably more accurate) and temporal resolutions in VMS (Hintzen *et al*., 2012).

There is great potential in having the ability to combine these two datasets. All interpretations will depend on the ability to successfully merge the VMS data with the logbooks: Its benefits might be later explored using the VMStools software (https://code.google.com/p/vmstools/) in conjunction with R. The key to starting a trial would be agreeing a common data format between countries.

If VMS were to be used it should be limited to aggregated data identified as fishing effort, such as a grid basis of 0.1 x 0.1 degree, and linked to logbooks for associated catches. Data could be processed into grid format within member state to a predetermined standard methodology and submitted in a grid format for aggregation at an international level. This aggregated data could subsequently be presented in map format.

5.9.5 ToR 3 Recent effort trends in pelagic fisheries, with emphasis on ICES areas XI, X and CECAF areas

STECF EWG 14-06 has not addressed this ToR due to time constraints. Respective data on effort trends in pelagic fisheries are available on the website: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1413

5.9.6 ToR 5 Comments on data quality and unexpected effects in Deep Sea and Western Waters fisheries data

STECF EWG 14-13 has no specific comments.

5.10 Bay of Biscay effort regime evaluation in the context of Council Regulation (EC) No 388/2006)

5.10.1 ToR 1.a Fishing effort in kWdays, GTdays and number of vessels by Member State and fisheries

Catch and effort data have been provided by all Member States. Spanish data have been provided only for 2012 & 2013. Spanish data provided the previous years on the period before 2012 are now under revision, effort and catch time series need to be reconsidered before further complete analysis of the activity in this area.

All analyses consider the 2012 & 2013 Spanish data, the only years for which Spanish data are available.

STECF-EWG-14-13 decided only to provide effort trends graphically starting from 2004 (10 years) onwards. Following the ToRs, all analyses were made for 8a and 8b separately as in 2013.

In 8a-BoB, 90% of 2013 effort is French, 7% Spain, 1% Belgium and 1% Netherlands. The main French fisheries are otter trawl, trammel and gill net and pelagic trawl. The main Spain fisheries are longline, otter trawl and gill net. Only Belgium beam trawl fleet and Netherlands pelagic trawl fleet are operational in 8a-BoB (Figure 5.10.1.2). In comparison with 2012 (Figure 5.10.1.1) Netherlands pelagic trawl fleet is a new fleet operational in 8a-BoB. Effort from Spain and French otter trawl fleet in 8a-BoB has decreased.

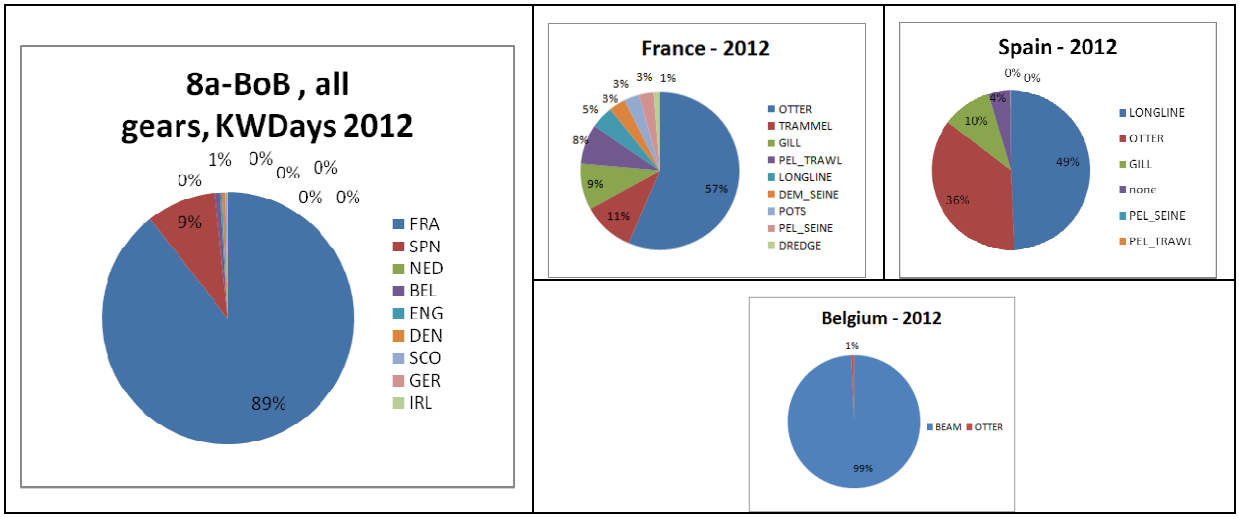


Figure 5.10.1.1: 8a-BoB, Distribution per country (and gear) of the nominal effort (kWdays) in 2012.

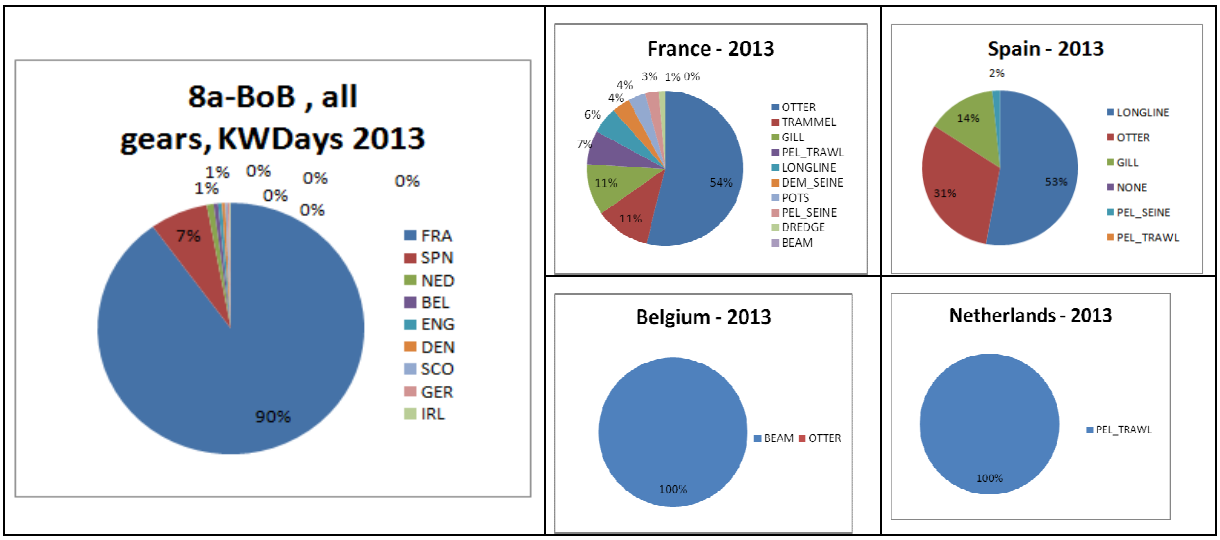


Figure 5.10.1.2: 8a-BoB, Distribution per country (and gear) of the nominal effort (kWdays) in 2013.

In 8b-BoB, 67% of effort in 2013 is French, 25% Spain, 6% Belgium and 1% Netherlands and England. The main French fisheries are otter trawl, trammel and gill net, longline and pelagic trawl. The main Spanish fisheries are otter trawl, pelagic seine and longline. Only Belgium beam trawl fleet and Netherlands and England pelagic trawl fleets are operational in 8b-BoB (Figure 5.10.1.4). In comparison with 2012 (Figure 5.10.1.3) Netherlands and England pelagic trawl fleets are new fleets operational in 8b-BoB. Spanish longline fleet effort reduced while Spanish pelagic seine fleet effort increased.

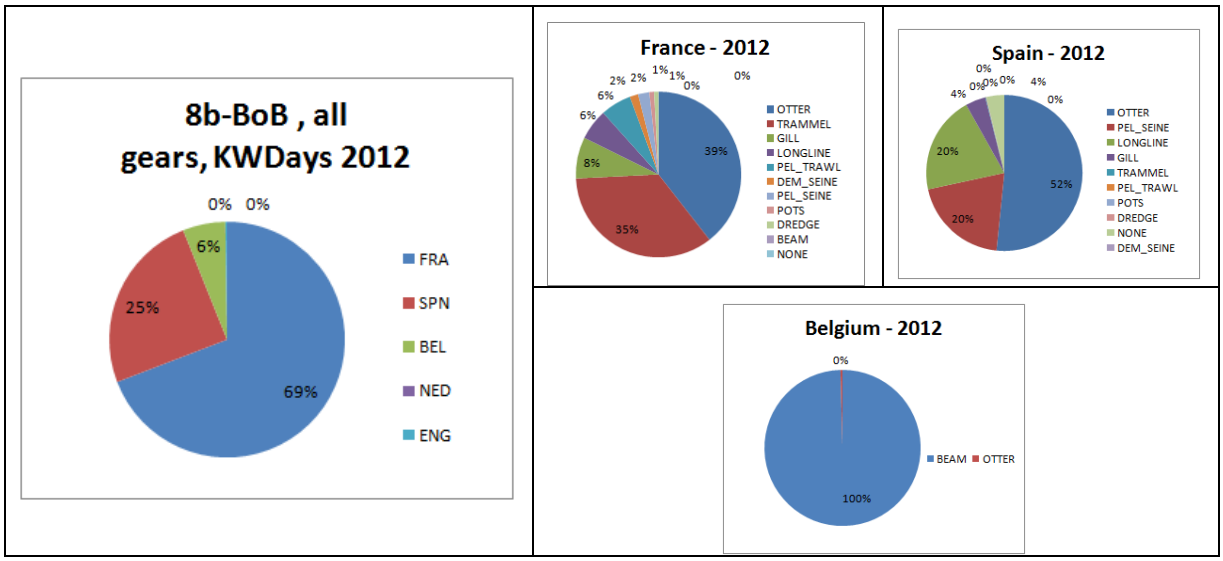


Figure 5.10.1.3: 8b-BoB, Distribution per country (and gear) of the nominal effort (kWdays) in 2012.

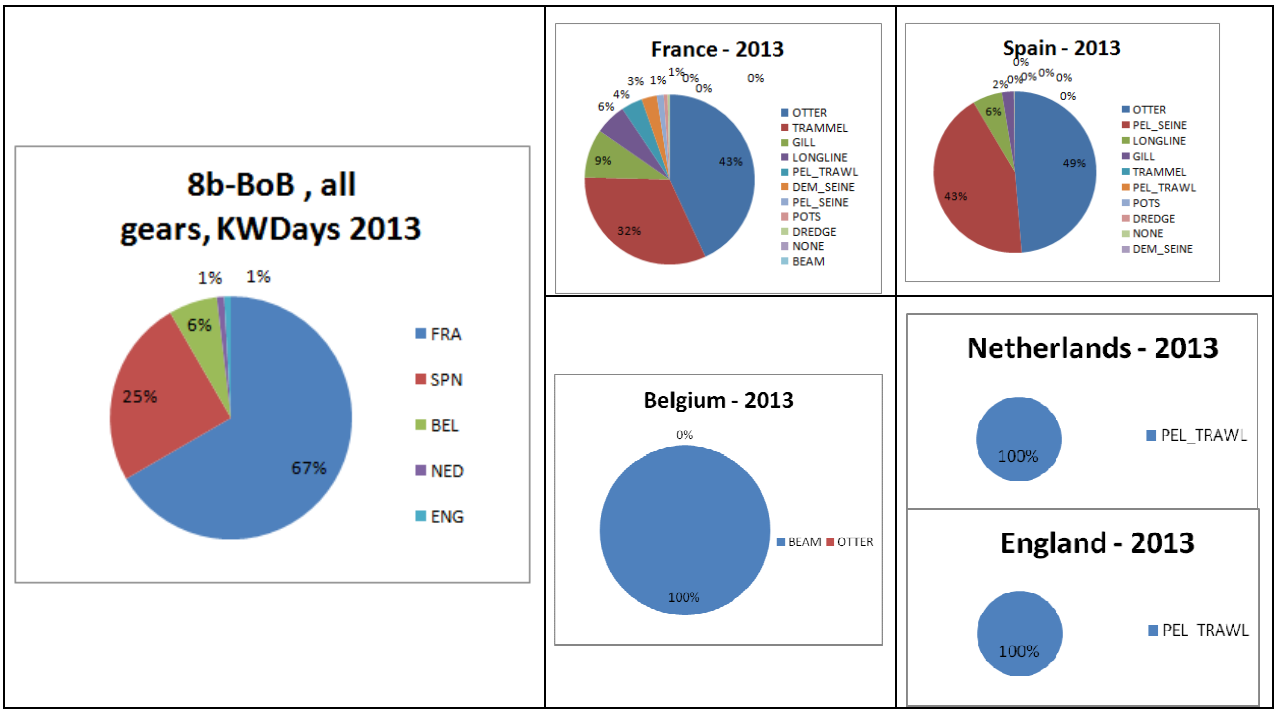


Figure 5.10.1.4: 8b-BoB, Distribution per country (and gear) of the nominal effort (kWdays) in 2013.

All 2012&2013 figures presented below take into account the Spanish data (only provided for these years). This issue must be kept in mind before any firm conclusions are drawn.

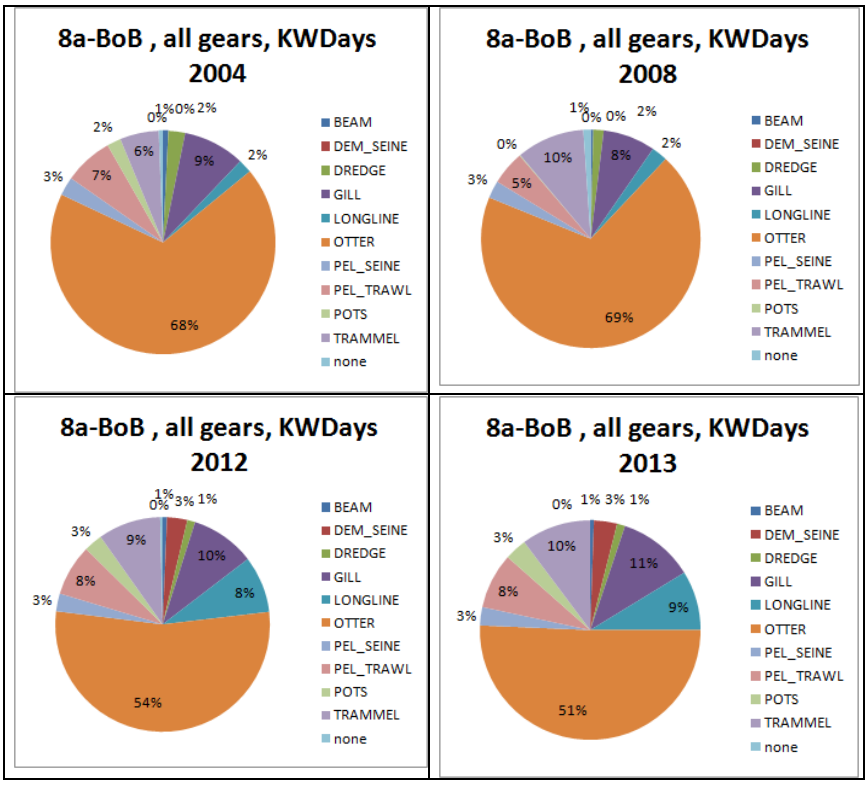


Figure 5.10.1.5: 8a-BoB, Trend in the distribution per gear of the nominal effort (KWdays).

The French otter trawl fleet being by far the dominating fleet with percentages around 60% of the effort deployed in the last 10 years in 8a-BoB (Table 5.10.1.1 and Figures 5.10.1.5).

The other fleets involved are the French trammel and gill nets with about 10% of the effort deployed in the last few years.

The French pelagic trawl was predominantly before 2004 (around 50% in 2000) but went down to around 7% in the last 10 years following a large decommissioning due to the anchovy crisis. New Netherlands pelagic trawl account for about 1% of the effort in 2013.

The Belgian beam trawl fleet accounts only for about 1% of the effort in 8a-BoB.

The Spanish and French longline fleet represent together 9% of the effort in 2012&2013.

Demersal seine is a new gear which appears the last four years.

Information on the nominal effort of the specific condition SBCIIIART5 is given in Tables 5.10.1.1 5.10.1.5 and 5.10.1.6. Data broken down following this specific condition were only provided for 2010-2013 period for French vessels and since 2006 for Belgian vessels, introducing a shift for the main gear type from the "none" category to the specon "SBCIIIART5". The specon "SBCIIART5" was not provided for Spanish data. **Following these considerations, no firm conclusion could be drawn based on the figures 5.10.1.7 presented below.**

As a quality check, STECF routinely compares the data currently submitted with the data submitted during the previous year, as is displayed in Table 5.10.1.3. Compared to the data submitted in 2013, no differences appear between the two datasets.

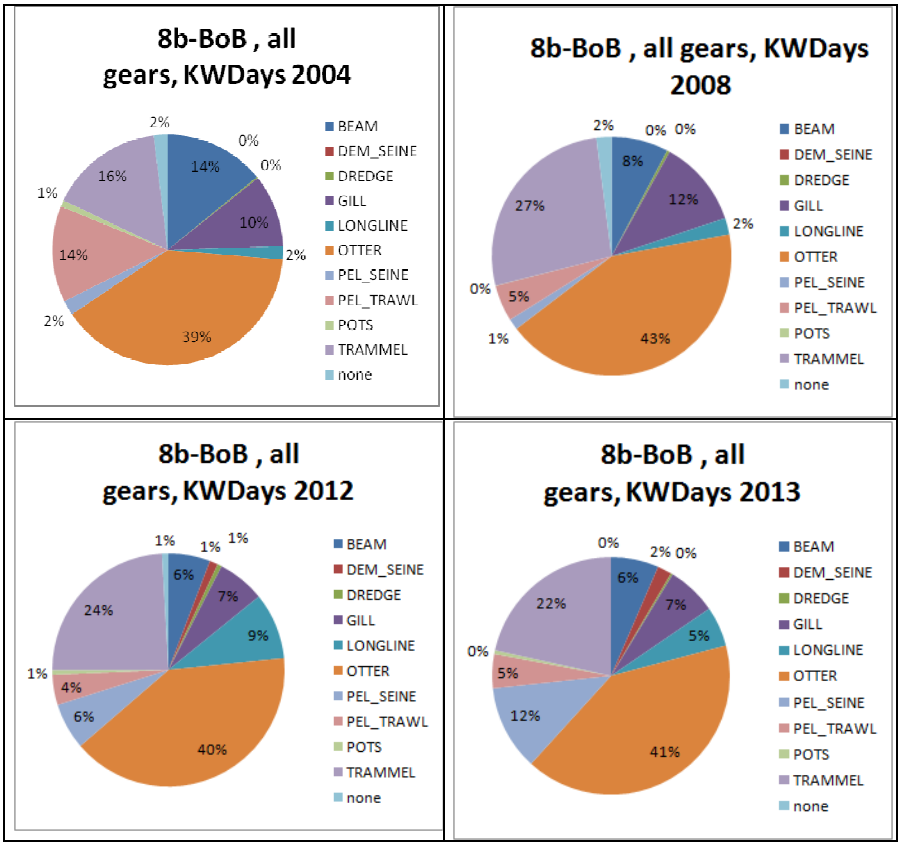


Figure 5.10.1.6: 8b-BoB, Trend in the distribution per gear of the nominal effort (kWdays).

The French otter trawl fleet being by far the dominating fleet with percentages around 40% of the effort deployed in all the period in 8b-BoB (Table 5.10.1.2 and Figures 5.10.1.6). The percentage increase a little in the last two years adding the Spanish otter trawl fleet.

The other fleets involved are the French trammel and gill nets with stable trends from about 25% and 10% in all the period.

The French pelagic trawl was important before 2004 (around 20% in 2000-2003 period) and went down to less than 5% in the last few years following a large decommissioning due to the anchovy crisis. New Netherlands and England pelagic trawl account for about 1% of the effort in 2013.

The Belgian beam trawl fleet accounts for about 8% of the effort in the last nine years.

The French longline fleet increase the last few years from less than 1% up to around 7% in the last few years. Spanish longline fleet was important in 2012 (5% of the effort) but represent only 1% of the effort in 2013.

Demersal seine is a new gear which appears the last four years.

The Spanish pelagic seine fleet was 6% of the effort in 2012 and increase up to 12% in 2013.

Information on the nominal effort of the specific condition SBCIIIART5 is given in Tables 5.10.1.2, 5.10.1.7 and 5.10.1.8. As mentioned above, data broken down following this specific condition were only provided for 2010-2013 period for French vessels and since 2006 for Belgian vessels, introducing a shift for the main gear type from the “none” category to the specon “SBCIIIART5”. The specon “SBCIIART5” was not provided for Spanish data. **Following these considerations, no firm conclusion could be drawn based on the figures 5.10.1.8 presented below.**

As a quality check, STECF routinely compares the data currently submitted with the data submitted during the previous year, as is displayed in Table 5.10.1.4. Compared to the data submitted in 2013, no differences appear between the two datasets.

Table 5.10.1.1 – Bay of Biscay – 8a - Trend in nominal effort (kW*days at sea) by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2004-2013. Derogations are sorted by gear, special condition (SPECON), and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
8a-BoB	BEAM	none	BEL	105 779	123 376								
8a-BoB			ENG					880					
8a-BoB			FRA	26 032	35 522	4 104					1 111		412
8a-BoB	**BEAM**	**none**	**Total**	**131 811**	**158 898**	**4 104**	-	**880**	-	-	**1 111**	-	**412**
8a-BoB	BEAM	SBcIIIart5	BEL			241 716	226 017	91 076	108 412	152 261	150 812	136 302	102 233
8a-BoB			FRA							588			
8a-BoB	**BEAM**	**SBcIIIart5**	**Total**			**241 716**	**226 017**	**91 076**	**108 412**	**152 849**	**150 812**	**136 302**	**102 233**
8a-BoB	DEM_SEINE	NONE	FRA							331 067	612 472	99 372	142 166
8a-BoB			NED						6 152				
8a-BoB	**DEM_SEINE**	**none**	**Total**						**6 152**	**331 067**	**612 472**	**99 372**	**142 166**
8a-BoB	DEM_SEINE	SBCIIIART5	FRA								215	542 371	500 008
8a-BoB	**DEM_SEINE**	**SBCIIIART5**	**Total**								**215**	**542 371**	**500 008**
8a-BoB	DREDGE	none	FRA	414 407	420 148	533 612	468 381	377 579	366 074	90 026	122 145	176 601	138 424
8a-BoB			IRL										
8a-BoB	**DREDGE**	**none**	**Total**	**414 407**	**420 148**	**533 612**	**468 381**	**377 579**	**366 074**	**90 026**	**122 145**	**176 601**	**138 424**
8a-BoB	DREDGE	SBcIIIart5	FRA							22 677	8 443	70 603	83 465
8a-BoB	**DREDGE**	**SBcIIIart5**	**Total**							**22 677**	**8 443**	**70 603**	**83 465**
8a-BoB	GILL	none	ENG	48 409	32 606	121 744	39 301	18 347	44 662	60 023	63 140	52 447	59 504
8a-BoB			ESP									189 434	188 616
8a-BoB			FRA	1 420 988	2 128 437	2 396 764	1 821 041	1 790 230	1 765 262	1 534 146	1 274 483	981 798	977 793
8a-BoB			SCO	58 729	78 826	33 150	54 702	93 152	29 681	49 473	21 850	28 060	45 553
8a-BoB	**GILL**	**none**	**Total**	**1 528 126**	**2 239 869**	**2 551 658**	**1 915 044**	**1 901 729**	**1 839 605**	**1 643 642**	**1 359 473**	**1 251 739**	**1 271 466**
8a-BoB	GILL	SBcIIIart5	FRA							575 670	471 754	776 035	821 799
8a-BoB	**GILL**	**SBcIIIart5**	**Total**							**575 670**	**471 754**	**776 035**	**821 799**
8a-BoB	LONGLINE	none	ENG	97 728	69 064	57 542	33 853	14 941					
8a-BoB			ESP									920 724	**700 131**
8a-BoB			FRA	241 134	365 723	656 098	621 551	546 023	546 023	603 895	701 468	710 982	750 393
8a-BoB			IRL		842	2 105							
8a-BoB			SCO			6 797	1 378	20 726		9 337	58 942	2 024	5 652
8a-BoB	**LONGLINE**	**none**	**Total**	**338 862**	**435 629**	**722 542**	**656 782**	**581 690**	**546 023**	**613 232**	**760 410**	**1 633 730**	**1 456 176**
8a-BoB	LONGLINE	SBcIIIart5	FRA							72 918	43 375	151 567	183 221
8a-BoB	**LONGLINE**	**SBcIIIart5**	**Total**							**72 918**	**43 375**	**151 567**	**183 221**
8a-BoB	OTTER	none	DEN				11 850		42 920				
8a-BoB			ENG	11 033		41 472			7 920	3 240	26 490		
8a-BoB			ESP									675 020	412 947
8a-BoB			FRA	11 645 225	14 681 996	18 526 531	20 544 828	17 065 302	16 945 895	6 396 041	6 287 764	4 506 741	3 573 180
8a-BoB			IRL	985		1 209							
8a-BoB			NIR						1 624				
8a-BoB			SCO									10 723	328
8a-BoB	**OTTER**	**none**	**Total**	**11 657 243**	**14 681 996**	**18 569 212**	**20 556 678**	**17 065 302**	**16 998 359**	**6 399 281**	**6 314 254**	**5 192 484**	**3 986 455**
8a-BoB	OTTER	SBcIIIart5	BEL									950	
			FRA							5 344 311	5 556 913	6 068 276	5 545 005
8a-BoB	**OTTER**	**SBcIIIart5**	**Total**							**5 344 311**	**5 556 913**	**6 069 226**	**5 545 005**
8a-BoB	PEL_SEINE	none	ESP									2 202	21 538
8a-BoB			FRA	459 144	447 532	591 583	611 037	637 343	637 028	684 055	744 393	556 022	475 353
8a-BoB	**PEL_SEINE**	**none**	**Total**	**459 144**	**447 532**	**591 583**	**611 037**	**637 343**	**637 028**	**684 055**	**744 393**	**558 224**	**496 891**
8a-BoB	PEL_SEINE	SBcIIIart5	FRA							828		588	7 055
8a-BoB	**PEL_SEINE**	**SBcIIIart5**	**Total**							**828**		**588**	**7 055**
8a-BoB	PEL_TRAWL	none	DEN			38 027	181 719	146 452	181 440	29 240	7 123	89 296	74 238
8a-BoB			ENG	139 716	119 686	92 445	36 288	155 677	170 025	44 490	24 501		26 812
8a-BoB			ESP									1 323	
8a-BoB			FRA	768 951	2 022 315	2 499 642	2 148 883	482 127	441 705	1 203 385	1 033 030	1 178 408	832 171
8a-BoB			GER	122 593	263 370	169 488		85 325	20 800	41 237	11 025		51 374
8a-BoB			IRL	65 951	52 942	37 511	27 652		4 028	15 000		13 439	25 397
8a-BoB			NED	114 007	512 294	428 503	94 666	367 306	166 742	99 986	11 880		156 320
8a-BoB			NIR						541				
8a-BoB			SCO						19 496				
8a-BoB	**PEL_TRAWL**	**none**	**Total**	**1 211 218**	**2 970 607**	**3 265 616**	**2 489 208**	**1 236 887**	**1 004 777**	**1 433 338**	**1 087 559**	**1 282 466**	**1 166 312**
8a-BoB	PEL_TRAWL	SBcIIIart5	FRA							101972	108910	337915	370111
8a-BoB	**PEL_TRAWL**	**SBcIIIart5**	**Total**							**101 972**	**108 910**	**337 915**	**370 111**
8a-BoB	POTS	none	ENG	10 185									
8a-BoB			FRA	312 543	173 870	153 118	126 862	22 195	22 195	619 138	551 436	451 463	469 818
8a-BoB			GER	21 168		13 631	11 500	7 056					
8a-BoB	**POTS**	**none**	**Total**	**343 896**	**173 870**	**166 749**	**138 362**	**29 251**	**22 195**	**619 138**	**551 436**	**451 463**	**469 818**
8a-BoB	POTS	SBcIIIart5	FRA							20 990	71 587	134 265	138 784
8a-BoB	**POTS**	**SBcIIIart5**	**Total**							**20 990**	**71 587**	**134 265**	**138 784**
8a-BoB	TRAMMEL	none	ENG					547					
8a-BoB			FRA	965 787	1 615 492	2 530 660	2 961 192	2 471 064	2 471 064	355 544	307 538	249 151	257 476
8a-BoB	**TRAMMEL**	**none**	**Total**	**965 787**	**1 615 492**	**2 530 660**	**2 961 192**	**2 471 611**	**2 471 064**	**355 544**	**307 538**	**249 151**	**257 476**
8a-BoB	TRAMMEL	SBcIIIart5	FRA							1 703 794	1 677 072	1 721 983	1 667 735
8a-BoB	**TRAMMEL**	**SBcIIIart5**	**Total**							**1 703 794**	**1 677 072**	**1 721 983**	**1 667 735**
8a-BoB	none	none	ESP									82 250	
8a-BoB			FRA	103 586	74 578	155 533	172 530	268 115	268 115		70 220		
8a-BoB	**none**	**none**	**Total**	**103 586**	**74 578**	**155 533**	**172 530**	**268 115**	**268 115**		**70 220**	**82 250**	-
8a-BoB	none	SBCIIIART5	FRA								4 324		
8a-BoB	**none**	**SBCIIIART5**	**Total**								**4 324**	-	

Table 5.10.1.2 – Bay of Biscay – 8b - Trend in nominal effort (kW*days at sea) by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2004-2013. Derogations are sorted by gear, special condition (SPECON), and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
8b-BoB	BEAM	none	BEL	550 314	712 933								
8b-BoB			FRA				438				147	440	
8b-BoB	**BEAM**	**none**	**Total**	**550 314**	**712 933**		**438**				**147**	**440**	-
8b-BoB	BEAM	SBcIIIart5	BEL			701 274	754 024	684 939	815 860	760 585	747 810	586 698	664 369
8b-BoB	**BEAM**	**SBcIIIart5**	**Total**			**701 274**	**754 024**	**684 939**	**815 860**	**760 585**	**747 810**	**586 698**	**664 369**
8b-BoB	DEM_SEINE	none	ESP									368	
8b-BoB			FRA							52 079	137 008	51 302	49 733
8b-BoB			NED						6 624	8 936		1 472	
8b-BoB	**DEM_SEINE**	**none**	**Total**						**6 624**	**61 015**	**137 008**	**53 142**	**49 733**
8b-BoB	DEM_SEINE	SBcIIIart5	FRA									64 490	148 786
8b-BoB	**DEM_SEINE**	**SBcIIIart5**	**Total**									**64 490**	**148 786**
8b-BoB	DREDGE	none	ESP									441	393
8b-BoB			FRA	7 536	52 315	64 803	36 614	33 423	33 423	29 311	18 220	47 724	19 096
8b-BoB	**DREDGE**	**none**	**Total**	**7 536**	**52 315**	**64 803**	**36 614**	**33 423**	**33 423**	**29 311**	**18 220**	**48 165**	**19 489**
8b-BoB	DREDGE	SBcIIIart5	FRA							3 598	7 395	12 098	7 717
8b-BoB	**DREDGE**	**SBcIIIart5**	**Total**							**3 598**	**7 395**	**12 098**	**7 717**
8b-BoB	GILL	none	ENG		2 893	40 108	15 076						
8b-BoB			ESP									104 564	59 802
8b-BoB			FRA	394 579	1 217 137	1 429 468	1 173 159	1 044 466	1 044 466	550 893	388 953	199 981	176 307
8b-BoB			SCO	3 306				3 270		6 789	836		
8b-BoB	**GILL**	**none**	**Total**	**397 885**	**1 220 030**	**1 469 576**	**1 188 235**	**1 047 736**	**1 044 466**	**557 682**	**389 789**	**304 545**	**236 109**
8b-BoB	GILL	SBcIIIart5	FRA							199 718	249 443	364 334	457 294
8b-BoB	**GILL**	**SBcIIIart5**	**Total**							**199 718**	**249 443**	**364 334**	**457 294**
8b-BoB	LONGLINE	none	ENG	12 428	2 582	9 426	20 748	5 296					
8b-BoB			ESP									507 639	**150 965**
8b-BoB			FRA	59 324	235 437	260 702	236 924	194 503	194 503	460 343	424 089	301 524	269 932
8b-BoB			IRL				1 263						
8b-BoB			SCO					1 434					
8b-BoB	**LONGLINE**	**none**	**Total**	**71 752**	**238 019**	**270 128**	**258 935**	**201 233**	**194 503**	**460 343**	**424 089**	**809 163**	**420 897**
8b-BoB	LONGLINE	SBcIIIart5	FRA							37 755	56 927	121 611	136 345
8b-BoB	**LONGLINE**	**SBcIIIart5**	**Total**							**37 755**	**56 927**	**121 611**	**136 345**
8b-BoB	OTTER	none	ENG	118 061	78 252	62 964					10 967	24 444	
8b-BoB			ESP									1 293 234	**1 246 021**
8b-BoB			FRA	1 413 043	3 780 100	3 828 101	4 114 702	3 789 258	3 781 816	640 861	985 186	626 927	741 434
8b-BoB			IRL			3 645							
8b-BoB	**OTTER**	**none**	**Total**	**1 531 104**	**3 858 352**	**3 894 710**	**4 114 702**	**3 789 258**	**3 781 816**	**640 861**	**996 153**	**1 944 605**	**1 987 455**
8b-BoB	OTTER	SBcIIIart5	BEL									2 499	
			FRA							1 976 798	1 745 826	2 130 614	2 202 399
8b-BoB	**OTTER**	**SBcIIIart5**	**Total**							**1 976 798**	**1 745 826**	**2 133 113**	**2 202 399**
8b-BoB	PEL_SEINE	none	ESP									500 912	**1 095 587**
8b-BoB			FRA	81 363	121 441	165 202	134 820	132 961	132 961	124 892	85 470	151 911	89 714
8b-BoB	**PEL_SEINE**	**none**	**Total**	**81 363**	**121 441**	**165 202**	**134 820**	**132 961**	**132 961**	**124 892**	**85 470**	**652 823**	**1 185 301**
8b-BoB	PEL_SEINE	SBcIIIart5	FRA										**662**
8b-BoB	**PEL_SEINE**	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	**662**
8b-BoB	PEL_TRAWL	none	ENG	67 346	8 055				47 280				91 982
8b-BoB			ESP									2 132	1 808
8b-BoB			FRA	367 024	1 126 082	1 576 779	975 175	406 269	386 776	361 874	195 840	293 078	101 937
8b-BoB			GER			12 065							6 194
8b-BoB			IRL	92 485	72 948	62 235	39 547	20 000					
8b-BoB			NED			32 360		11 452			7 920		101 350
8b-BoB	**PEL_TRAWL**	**none**	**Total**	**526 855**	**1 207 085**	**1 683 439**	**1 014 722**	**437 721**	**434 056**	**361 874**	**203 760**	**295 210**	**303 271**
8b-BoB	PEL_TRAWL	SBcIIIart5	FRA							45 250	75 157	128 099	172 874
8b-BoB	**PEL_TRAWL**	**SBcIIIart5**	**Total**							**45 250**	**75 157**	**128 099**	**172 874**
8b-BoB	POTS	none	ESP									1 124	1 362
8b-BoB			FRA	35 213	2 981	34 432	38 021	2 716	2 716	28 349	28 015	13 444	8 757
8b-BoB	**POTS**	**none**	**Total**	**35 213**	**2 981**	**34 432**	**38 021**	**2 716**	**2 716**	**28 349**	**28 015**	**14 568**	**10 119**
8b-BoB	POTS	SBcIIIart5	FRA							24 946	24 870	52 304	41 565
8b-BoB	**POTS**	**SBcIIIart5**	**Total**							**24 946**	**24 870**	**52 304**	**41 565**
8b-BoB	TRAMMEL	none	ESP									3 792	2 683
8b-BoB			FRA	623 795	1 943 385	2 474 068	2 293 981	2 398 241	2 396 111	124 925	87 703	147 220	134 814
8b-BoB	**TRAMMEL**	**none**	**Total**	**623 795**	**1 943 385**	**2 474 068**	**2 293 981**	**2 398 241**	**2 396 111**	**124 925**	**87 703**	**151 012**	**137 497**
8b-BoB	TRAMMEL	SBcIIIart5	FRA							2 077 736	1 996 776	2 286 383	2 069 605
8b-BoB	**TRAMMEL**	**SBcIIIart5**	**Total**							**2 077 736**	**1 996 776**	**2 286 383**	**2 069 605**
8b-BoB	none	none	ESP									91 180	
8b-BoB			FRA	75 689	116 764	192 933	106 136	181 700	181 700		76 984		
8b-BoB			IRL		25 000								
8b-BoB	**none**	**none**	**Total**	**75 689**	**141 764**	**192 933**	**106 136**	**181 700**	**181 700**		**76 984**	**91 180**	-
8b-BoB	none	SBcIIIart5	FRA								8 615		
8b-BoB	**none**	**SBcIIIart5**	**Total**								**8 615**	-	

Table 5.10.1.3 – Bay of Biscay – 8a – Percentage difference in effort (kW*days at sea) by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2004-2012 between the data provided in 2013 and 2014. Derogations are sorted by gear, special condition (SPECON), and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

reg_area_cod	reg_gear_cod	country	specon	vessel_length	2004	2005	2006	2007	2008	2009	2010	2011	2012
8A-BOB	BEAM	BEL	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	BEAM	ENG	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	BEAM	FRA	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	BEAM	FRA	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	BEAM	NED	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	BEAM	BEL	SBCIIIART5	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	BEAM	FRA	SBCIIIART5	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	DEM_SEINE	FRA	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	DEM_SEINE	FRA	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	DEM_SEINE	NED	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	DEM_SEINE	FRA	SBCIIIART5	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	DEM_SEINE	FRA	SBCIIIART5	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	DREDGE	FRA	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	DREDGE	FRA	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	DREDGE	IRL	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	DREDGE	SCO	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	DREDGE	FRA	SBCIIIART5	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	DREDGE	FRA	SBCIIIART5	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	GILL	ENG	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	GILL	ENG	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	GILL	ESP	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	GILL	FRA	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	GILL	FRA	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	GILL	SCO	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	GILL	FRA	SBCIIIART5	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	GILL	FRA	SBCIIIART5	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	LONGLINE	ENG	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	LONGLINE	ESP	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	LONGLINE	ESP	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	LONGLINE	FRA	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	LONGLINE	FRA	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	LONGLINE	IRL	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	LONGLINE	SCO	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	LONGLINE	FRA	SBCIIIART5	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	LONGLINE	FRA	SBCIIIART5	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	NONE	ESP	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	NONE	FRA	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	NONE	FRA	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	NONE	FRA	SBCIIIART5	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	OTTER	DEN	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	OTTER	ENG	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	OTTER	ESP	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	OTTER	FRA	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	OTTER	FRA	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	OTTER	IRL	NONE	NONE	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	OTTER	IRL	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	OTTER	NIR	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	OTTER	SCO	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	OTTER	BEL	SBCIIIART5	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	OTTER	FRA	SBCIIIART5	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	OTTER	FRA	SBCIIIART5	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	PEL_SEINE	ESP	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	PEL_SEINE	FRA	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	PEL_SEINE	FRA	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	PEL_SEINE	FRA	SBCIIIART5	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	PEL_SEINE	FRA	SBCIIIART5	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	PEL_TRAWL	DEN	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	PEL_TRAWL	ENG	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	PEL_TRAWL	ESP	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	PEL_TRAWL	FRA	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	PEL_TRAWL	FRA	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	PEL_TRAWL	GER	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	PEL_TRAWL	IRL	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	PEL_TRAWL	NED	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	PEL_TRAWL	NIR	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	PEL_TRAWL	SCO	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	PEL_TRAWL	FRA	SBCIIIART5	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	PEL_TRAWL	FRA	SBCIIIART5	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	POTS	ENG	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	POTS	FRA	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	POTS	FRA	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	POTS	GER	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	POTS	FRA	SBCIIIART5	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	POTS	FRA	SBCIIIART5	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	TRAMMEL	ENG	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	TRAMMEL	FRA	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	TRAMMEL	FRA	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	TRAMMEL	FRA	SBCIIIART5	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8A-BOB	TRAMMEL	FRA	SBCIIIART5	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%

Table 5.10.1.4 – Bay of Biscay – 8b – Percentage difference in effort (kW*days at sea) by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2004-2012 between the data provided in 2013 and 2014. Derogations are sorted by gear, special condition (SPECON), and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

reg_area_cod	reg_gear_cod	country	specon	vessel_length	2004	2005	2006	2007	2008	2009	2010	2011	2012
8B-BOB	BEAM	BEL	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	BEAM	FRA	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	BEAM	NED	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	BEAM	BEL	SBCIIIART5	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	DEM_SEINE	ESP	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	DEM_SEINE	FRA	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	DEM_SEINE	FRA	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	DEM_SEINE	NED	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	DEM_SEINE	FRA	SBCIIIART5	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	DREDGE	ESP	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	DREDGE	FRA	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	DREDGE	FRA	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	DREDGE	FRA	SBCIIIART5	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	DREDGE	FRA	SBCIIIART5	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	GILL	ENG	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	GILL	ESP	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	GILL	ESP	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	GILL	FRA	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	GILL	FRA	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	GILL	SCO	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	GILL	FRA	SBCIIIART5	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	GILL	FRA	SBCIIIART5	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	LONGLINE	ENG	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	LONGLINE	ESP	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	LONGLINE	ESP	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	LONGLINE	FRA	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	LONGLINE	FRA	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	LONGLINE	IRL	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	LONGLINE	SCO	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	LONGLINE	FRA	SBCIIIART5	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	LONGLINE	FRA	SBCIIIART5	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	NONE	ESP	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	NONE	ESP	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	NONE	FRA	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	NONE	FRA	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	NONE	IRL	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	NONE	FRA	SBCIIIART5	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	NONE	FRA	SBCIIIART5	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	OTTER	ENG	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	OTTER	ESP	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	OTTER	FRA	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	OTTER	FRA	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	OTTER	IRL	NONE	NONE	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	OTTER	IRL	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	OTTER	BEL	SBCIIIART5	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	OTTER	FRA	SBCIIIART5	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	OTTER	FRA	SBCIIIART5	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	PEL_SEINE	ESP	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	PEL_SEINE	FRA	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	PEL_SEINE	FRA	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	PEL_TRAWL	ENG	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	PEL_TRAWL	ESP	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	PEL_TRAWL	FRA	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	PEL_TRAWL	FRA	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	PEL_TRAWL	GER	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	PEL_TRAWL	IRL	NONE	NONE	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	PEL_TRAWL	IRL	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	PEL_TRAWL	IRL	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	PEL_TRAWL	NED	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	PEL_TRAWL	FRA	SBCIIIART5	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	PEL_TRAWL	FRA	SBCIIIART5	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	POTS	ESP	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	POTS	ESP	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	POTS	FRA	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	POTS	FRA	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	POTS	FRA	SBCIIIART5	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	POTS	FRA	SBCIIIART5	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	TRAMMEL	ESP	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	TRAMMEL	ESP	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	TRAMMEL	FRA	NONE	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	TRAMMEL	FRA	NONE	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	TRAMMEL	FRA	SBCIIIART5	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%
8B-BOB	TRAMMEL	FRA	SBCIIIART5	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%

Table 5.10.1.5 – Bay of Biscay – 8a - Trend in nominal effort (kW*days at sea) 2004-2013 by derogations stated in article 5 of Coun. Reg. 388/2006. Derogations are sorted by gear and special condition (SPECON) (o. 10m length vessels). Relative changes between 2012 and 2013 are presented. Data qualities are summarised in Section 4 of the report.

REG AREA COD	REG GEAR COD	SPECON	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Rel.C 13-12
8A-BOB	BEAM	NONE	131 811	158 898	4 104		880			1 111		412	
8A-BOB	BEAM	SBCIIIART5			241 716	226 017	91 076	108 412	152 849	150 812	136 302	102 233	-25%
8A-BOB	DEM_SEINE	NONE						6 152	331 067	612 472	99 372	142 166	43%
8A-BOB	DEM_SEINE	SBCIIIART5								215	542 371	500 008	-8%
8A-BOB	DREDGE	NONE	414 407	420 148	533 612	468 381	377 579	366 074	90 026	122 145	176 601	138 424	-22%
8A-BOB	DREDGE	SBCIIIART5							22 677	8 443	70 603	83 465	18%
8A-BOB	GILL	NONE	1 528 126	2 239 869	2 551 658	1 915 044	1 901 729	1 839 605	1 643 642	1 359 473	1 251 739	1 271 466	2%
8A-BOB	GILL	SBCIIIART5							575 670	471 754	776 035	821 799	6%
8A-BOB	LONGLINE	NONE	338 862	435 629	722 542	656 782	581 690	546 023	613 232	760 410	1 633 730	1 456 176	-11%
8A-BOB	LONGLINE	SBCIIIART5							72 918	43 375	151 567	183 221	21%
8A-BOB	OTTER	NONE	11 657 243	14 681 996	18 569 212	20 556 678	17 065 302	16 998 359	6 399 281	6 314 254	5 192 484	3 986 455	-23%
8A-BOB	OTTER	SBCIIIART5							5 344 311	5 556 913	6 069 226	5 545 005	-9%
8A-BOB	PEL_SEINE	NONE	459 144	447 532	591 583	611 037	637 343	637 028	684 055	744 393	558 224	496 891	-11%
8A-BOB	PEL_SEINE	SBCIIIART5							828		588	7 055	1100%
8A-BOB	PEL_TRAWL	NONE	1 211 218	2 970 607	3 265 616	2 489 208	1 236 887	1 004 777	1 433 338	1 087 559	1 282 466	1 166 312	-9%
8A-BOB	PEL_TRAWL	SBCIIIART5							101 972	108 910	337 915	370 111	10%
8A-BOB	POTS	NONE	343 896	173 870	166 749	138 362	29 251	22 195	619 138	551 436	451 463	469 818	4%
8A-BOB	POTS	SBCIIIART5							20 990	71 587	134 265	138 784	3%
8A-BOB	TRAMMEL	NONE	965 787	1 615 492	2 530 660	2 961 192	2 471 611	2 471 064	355 544	307 538	249 151	257 476	3%
8A-BOB	TRAMMEL	SBCIIIART5							1 703 794	1 677 072	1 721 983	1 667 735	-3%
8A-BOB	NONE	NONE	103 586	74 578	155 533	172 530	268 115	268 115		70 220	82 250		-100%
8A-BOB	NONE	SBCIIIART5								4 324			
Sum			17 154 080	23 218 619	29 332 985	30 195 231	24 661 463	24 267 804	20 165 332	20 024 416	20 918 335	18 805 012	-10%

Table 5.10.1.6 – Bay of Biscay – 8a - Trend in nominal effort (kW*days at sea) 2004-2013 by derogations stated in article 5 of Coun. Reg. 388/2006. Derogations are sorted by gear (o. 10m length vessels). Relative changes between 2012 and 2013 are presented. Data qualities are summarised in Section 4 of the report.

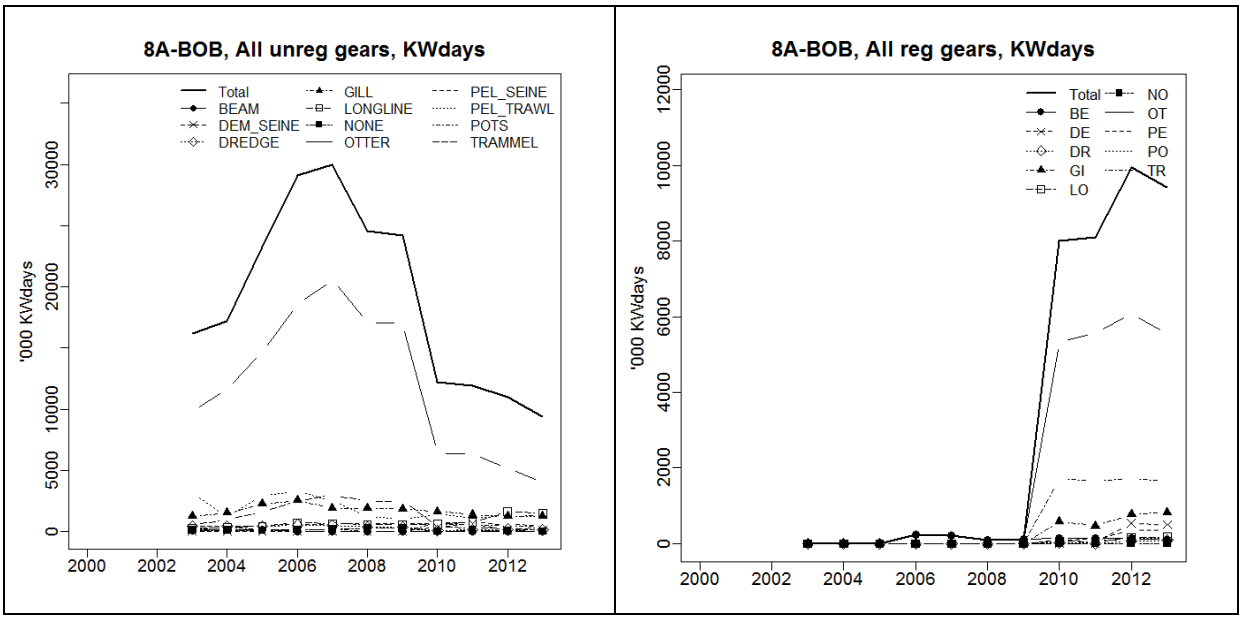
Length Class	REG AREA COD	REG GEAR COD	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Rel.C 13-12
o. 10m.	8A-BOB	BEAM	131 811	158 898	245 820	226 017	91 956	108 412	152 849	151 923	136 302	102 645	-25%
	8A-BOB	DEM_SEINE						6 152	331 067	612 687	641 743	642 174	0%
	8A-BOB	DREDGE	414 407	420 148	533 612	468 381	377 579	366 074	112 703	130 588	247 204	221 889	-10%
	8A-BOB	GILL	1 528 126	2 239 869	2 551 658	1 915 044	1 901 729	1 839 605	2 219 312	1 831 227	2 027 774	2 093 265	3%
	8A-BOB	LONGLINE	338 862	435 629	722 542	656 782	581 690	546 023	686 150	803 785	1 785 297	1 639 397	-8%
	8A-BOB	OTTER	11 657 243	14 681 996	18 569 212	20 556 678	17 065 302	16 998 359	11 743 592	11 871 167	11 261 710	9 531 460	-15%
	8A-BOB	PEL_SEINE	459 144	447 532	591 583	611 037	637 343	637 028	684 883	744 393	558 812	503 946	-10%
	8A-BOB	PEL_TRAWL	1 211 218	2 970 607	3 265 616	2 489 208	1 236 887	1 004 777	1 535 310	1 196 469	1 620 381	1 536 423	-5%
	8A-BOB	POTS	343 896	173 870	166 749	138 362	29 251	22 195	640 128	623 023	585 728	608 602	4%
	8A-BOB	TRAMMEL	965 787	1 615 492	2 530 660	2 961 192	2 471 611	2 471 064	2 059 338	1 984 610	1 971 134	1 925 211	-2%
	8A-BOB	NONE	103 586	74 578	155 533	172 530	268 115	268 115		74 544	82 250		-100%
	Sum o. 10m.		17 154 080	23 218 619	29 332 985	30 195 231	24 661 463	24 267 804	20 165 332	20 024 416	20 918 335	18 805 012	-10%

Table 5.10.1.7 – Bay of Biscay – 8b - Trend in nominal effort (kW*days at sea) 2004-2013 by derogations stated in article 5 of Coun. Reg. 388/2006. Derogations are sorted by gear and special condition (SPECON) (o. 10m length vessels). Relative changes between 2012 and 2013 are presented. Data qualities are summarised in Section 4 of the report.

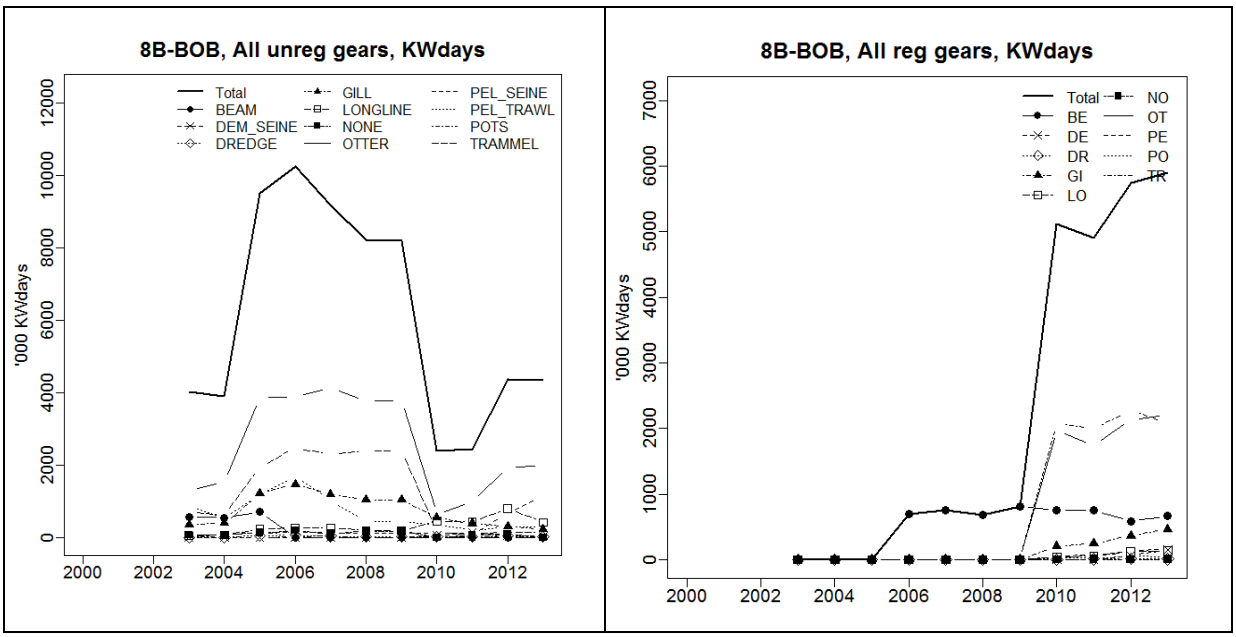
REG AREA COD	REG GEAR COD	SPECON	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Rel.C 13-12
8B-BOB	BEAM	NONE	550 314	712 933		438				147	440		-100%
8B-BOB	BEAM	SBCIIIART5			701 274	754 024	684 939	815 860	760 585	747 810	586 698	664 369	13%
8B-BOB	DEM_SEINE	NONE						6 624	61 015	137 008	53 142	49 733	-6%
8B-BOB	DEM_SEINE	SBCIIIART5									64 490	148 786	131%
8B-BOB	DREDGE	NONE	7 536	52 315	64 803	36 614	33 423	33 423	29 311	18 220	48 165	19 489	-60%
8B-BOB	DREDGE	SBCIIIART5							3 598	7 395	12 098	7 717	-36%
8B-BOB	GILL	NONE	397 885	1 220 030	1 469 576	1 188 235	1 047 736	1 044 466	557 682	389 789	304 545	236 109	-22%
8B-BOB	GILL	SBCIIIART5							199 718	249 443	364 334	457 294	26%
8B-BOB	LONGLINE	NONE	71 752	238 019	270 128	258 935	201 233	194 503	460 343	424 089	809 163	420 897	-48%
8B-BOB	LONGLINE	SBCIIIART5							37 755	56 927	121 611	136 345	12%
8B-BOB	OTTER	NONE	1 531 104	3 858 352	3 894 710	4 114 702	3 789 258	3 781 816	640 861	996 153	1 944 605	1 987 455	2%
8B-BOB	OTTER	SBCIIIART5							1 976 798	1 745 826	2 133 113	2 202 399	3%
8B-BOB	PEL_SEINE	NONE	81 363	121 441	165 202	134 820	132 961	132 961	124 892	85 470	652 823	1 185 301	82%
8B-BOB	PEL_SEINE	SBCIIIART5										662	
8B-BOB	PEL_TRAWL	NONE	526 855	1 207 085	1 683 439	1 014 722	437 721	434 056	361 874	203 760	295 210	303 271	3%
8B-BOB	PEL_TRAWL	SBCIIIART5							45 250	75 157	128 099	172 874	35%
8B-BOB	POTS	NONE	35 213	2 981	34 432	38 021	2 716	2 716	28 349	28 015	14 568	10 119	-31%
8B-BOB	POTS	SBCIIIART5							24 946	24 870	52 304	41 565	-21%
8B-BOB	TRAMMEL	NONE	623 795	1 943 385	2 474 068	2 293 981	2 398 241	2 396 111	124 925	87 703	151 012	137 497	-9%
8B-BOB	TRAMMEL	SBCIIIART5							2 077 736	1 996 776	2 286 383	2 069 605	-9%
8B-BOB	NONE	NONE	75 689	141 764	192 933	106 136	181 700	181 700		76 984	91 180		-100%
8B-BOB	NONE	SBCIIIART5								8 615			
Sum			3 901 506	9 498 305	10 950 565	9 940 628	8 909 928	9 024 236	7 515 638	7 360 157	10 113 983	10 251 487	1%

Table 5.10.1.8 – Bay of Biscay – 8b - Trend in nominal effort (kW*days at sea) 2004-2013 by derogations stated in article 5 of Coun. Reg. 388/2006. Derogations are sorted by gear (o. 10m length vessels). Relative changes between 2012 and 2013 are presented. Data qualities are summarised in Section 4 of the report.

Length Class	REG AREA COD	REG GEAR COD	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Rel.C 13-12
o. 10m.	8B-BOB	BEAM	550 314	712 933	701 274	754 462	684 939	815 860	760 585	747 957	587 138	664 369	13%
	8B-BOB	DEM_SEINE						6 624	61 015	137 008	117 632	198 519	69%
	8B-BOB	DREDGE	7 536	52 315	64 803	36 614	33 423	33 423	32 909	25 615	60 263	27 206	-55%
	8B-BOB	GILL	397 885	1 220 030	1 469 576	1 188 235	1 047 736	1 044 466	757 400	639 232	668 879	693 403	4%
	8B-BOB	LONGLINE	71 752	238 019	270 128	258 935	201 233	194 503	498 098	481 016	930 774	557 242	-40%
	8B-BOB	OTTER	1 531 104	3 858 352	3 894 710	4 114 702	3 789 258	3 781 816	2 617 659	2 741 979	4 077 718	4 189 854	3%
	8B-BOB	PEL_SEINE	81 363	121 441	165 202	134 820	132 961	132 961	124 892	85 470	652 823	1 185 963	82%
	8B-BOB	PEL_TRAWL	526 855	1 207 085	1 683 439	1 014 722	437 721	434 056	407 124	278 917	423 309	476 145	12%
	8B-BOB	POTS	35 213	2 981	34 432	38 021	2 716	2 716	53 295	52 885	66 872	51 684	-23%
	8B-BOB	TRAMMEL	623 795	1 943 385	2 474 068	2 293 981	2 398 241	2 396 111	2 202 661	2 084 479	2 437 395	2 207 102	-9%
	8B-BOB	NONE	75 689	141 764	192 933	106 136	181 700	181 700		85 599	91 180		-100%
	Sum o. 10m.		3 901 506	9 498 305	10 950 565	9 940 628	8 909 928	9 024 236	7 515 638	7 360 157	10 113 983	10 251 487	1%



Figures 5.10.1.7 – Bay of Biscay – 8a -Trend in nominal effort (kW*days at sea) sorted by gear for unregulated (without special condition SBcIIIart5) and regulated gears (with special condition SBcIIIart5) by derogations stated in article 5 of Coun. Reg. 388/2006, 2003-2013 (o. 10m length vessels). Data qualities are summarised in section 4 of the report.



Figures 5.10.1.8 – Bay of Biscay – 8b -Trend in nominal effort (kW*days at sea) sorted by gear for unregulated (without special condition SBcIIIart5) and regulated gears (with special condition SBcIIIart5) by derogations stated in article 5 of Coun. Reg. 388/2006, 2003-2013 (o. 10m length vessels). Data qualities are summarised in section 4 of the report.

Information on trend in GT*days at sea and in the number of vessels active in the Bay of Biscay are also presented below in this report by ICES division 8a and 8b.

Table 5.10.1.9 – Bay of Biscay – 8a - Trend in GT*days at sea by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2004-2013. Derogations are sorted by gear, special condition (SPECON), and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
8a-BoB	BEAM	none	BEL	41 119	47 383								
8a-BoB			ENG					548					
8a-BoB			FRA	4 067	4 350	1 044					146		56
8a-BoB	**BEAM**	**none**	**Total**	**45 186**	**51 733**	**1 044**		**548**			**146**	-	
8a-BoB	BEAM	SBcIIIart5	BEL			84 980	78 171	30 580	37 476	51 580	51 331	45 998	35 068
8a-BoB			FRA							96			
8a-BoB	**BEAM**	**SBcIIIart5**	**Total**			**84 980**	**78 171**	**30 580**	**37 476**	**51 676**	**51 331**	**45 998**	**35 068**
8a-BoB	DEM_SEINE	none	FRA							121 045	192 333	46 306	67 833
8a-BoB			NED						2 480				
8a-BoB	**DEM_SEINE**	**none**	**Total**						**2 480**	**121 045**	**192 333**	**46 306**	**67 833**
8a-BoB	DEM_SEINE	SBcIIIart5	FRA								12	151 467	150 621
8a-BoB	**DEM_SEINE**	**SBcIIIart5**	**Total**								**12**	**151 467**	**150 621**
8a-BoB	DREDGE	none	FRA	47 879	60 998	63 565	52 729	39 468	38 281	9 016	12 977	16 524	14 820
8a-BoB			IRL										
8a-BoB	**DREDGE**	**none**	**Total**	**47 879**	**60 998**	**63 565**	**52 729**	**39 468**	**38 281**	**9 016**	**12 977**	**16 524**	**14 820**
8a-BoB	DREDGE	SBcIIIart5	FRA							1 944	952	7 271	9 214
8a-BoB	**DREDGE**	**SBcIIIart5**	**Total**							**1 944**	**952**	**7 271**	**9 214**
8a-BoB	GILL	none	ENG	22 584	15 212	58 807	19 279	7 817	23 963	37 567	39 130	34 343	39 765
8a-BoB			ESP									103 797	105 890
8a-BoB			FRA	297 024	458 835	531 454	371 124	402 673	398 498	587 038	463 989	368 113	365 546
8a-BoB			SCO	30 895	43 990	22 249	36 714	54 169	19 920	25 475	11 785	15 134	24 654
8a-BoB	**GILL**	**none**	**Total**	**350 503**	**518 037**	**612 510**	**427 117**	**464 659**	**442 381**	**650 080**	**514 904**	**521 387**	**535 855**
8a-BoB	GILL	SBcIIIart5	FRA							151 266	120 581	192 041	211 658
8a-BoB	**GILL**	**SBcIIIart5**	**Total**							**151 266**	**120 581**	**192 041**	**211 658**
8a-BoB	LONGLINE	none	ENG	37 943	27 567	22 450	12 957	5 661					
8a-BoB			ESP									567 484	477 247
8a-BoB			FRA	44 383	54 037	90 504	87 531	81 705	81 705	85 398	122 373	157 138	161 982
8a-BoB			IRL		356	890							
8a-BoB			SCO			3 198	636	7 929		4 171	26 339	958	2 676
8a-BoB	**LONGLINE**	**none**	**Total**	**82 326**	**81 960**	**117 042**	**101 124**	**95 295**	**81 705**	**89 569**	**148 712**	**725 580**	**641 905**
8a-BoB	LONGLINE	SBcIIIart5	FRA							8 554	5 809	15 733	17 826
8a-BoB	**LONGLINE**	**SBcIIIart5**	**Total**							**8 554**	**5 809**	**15 733**	**17 826**
8a-BoB	OTTER	none	DEN				6 160		17 864				
8a-BoB			ENG	4 036		20 419			3 900	1 602	12 863		
8a-BoB			ESP									556 724	336 238
8a-BoB			FRA	2 124 410	2 751 523	3 539 780	3 937 325	3 319 519	3 298 580	1 308 360	1 303 437	906 942	703 649
8a-BoB			IRL	396		477							
8a-BoB			NIR						624				
8a-BoB			SCO									3 113	177
8a-BoB	**OTTER**	**none**	**Total**	**2 128 842**	**2 751 523**	**3 560 676**	**3 943 485**	**3 319 519**	**3 320 968**	**1 309 962**	**1 316 300**	**1 466 779**	**1 040 064**
8a-BoB	OTTER	SBcIIIart5	BEL									284	
8a-BoB	OTTER	SBcIIIart5	FRA							1 049 209	1 071 172	1 194 394	1 062 537
8a-BoB	**OTTER**	**SBcIIIart5**	**Total**							**1 049 209**	**1 071 172**	**1 194 394**	**1 062 537**
8a-BoB	PEL_SEINE	none	ESP									831	8 843
8a-BoB			FRA	81 644	79 879	132 720	126 012	135 533	135 533	112 289	127 523	99 753	83 409
8a-BoB	**PEL_SEINE**	**none**	**Total**	**81 644**	**79 879**	**132 720**	**126 012**	**135 533**	**135 533**	**112 289**	**127 523**	**100 584**	**92 252**
8a-BoB	PEL_SEINE	SBcIIIart5	FRA							96		128	2 210
8a-BoB	**PEL_SEINE**	**SBcIIIart5**	**Total**							**96**	-	**128**	**2 210**
8a-BoB	PEL_TRAWL	none	DEN			17 148	87 669	65 290	80 888	13 036	3 175	39 809	37 896
8a-BoB			ENG	83 912	71 904	61 750	17 867	85 125	109 659	23 130	14 193		18 461
8a-BoB			ESP									1 314	
8a-BoB			FRA	170 849	490 569	622 968	445 413	161 027	153 527	250 029	203 482	308 445	200 136
8a-BoB			GER	166 460	327 390	203 520		102 668	25 448	46 031	12 112		55 252
8a-BoB			IRL	41 571	28 516	15 056	11 858		4 372	6 564		5 899	14 584
8a-BoB			NED	89 502	423 345	377 857	74 323	301 717	138 260	75 620	9 822		156 465
8a-BoB			NIR						208				
8a-BoB			SCO						5 660				
8a-BoB	**PEL_TRAWL**	**none**	**Total**	**552 294**	**1 341 724**	**1 298 299**	**637 130**	**715 827**	**518 022**	**414 410**	**242 784**	**355 467**	**482 794**
8a-BoB	PEL_TRAWL	SBcIIIart5	FRA							20 694	16 214	64 715	72 735
8a-BoB	**PEL_TRAWL**	**SBcIIIart5**	**Total**							**20 694**	**16 214**	**64 715**	**72 735**
8a-BoB	POTS	none	ENG	7 423									
8a-BoB			FRA	67 891	47 060	45 699	32 605	5 260	5 260	133 328	111 089	104 635	120 227
8a-BoB			GER	9 540		6 150	5 190	3 184					
8a-BoB	**POTS**	**none**	**Total**	**84 854**	**47 060**	**51 849**	**37 795**	**8 444**	**5 260**	**133 328**	**111 089**	**104 635**	**120 227**
8a-BoB	POTS	SBcIIIart5	FRA							2 581	7 844	13 901	16 645
8a-BoB	**POTS**	**SBcIIIart5**	**Total**							**2 581**	**7 844**	**13 901**	**16 645**
8a-BoB	TRAMMEL	none	ENG					108					
8a-BoB			FRA	175 397	290 396	436 957	531 259	435 546	435 546	40 030	34 867	26 100	39 450
8a-BoB	**TRAMMEL**	**none**	**Total**	**175 397**	**290 396**	**436 957**	**531 259**	**435 654**	**435 546**	**40 030**	**34 867**	**26 100**	**39 450**
8a-BoB	TRAMMEL	SBcIIIart5	FRA							388 781	368 905	377 620	346 481
8a-BoB	**TRAMMEL**	**SBcIIIart5**	**Total**							**388 781**	**368 905**	**377 620**	**346 481**
8a-BoB	none	none	ESP									44 652	
8a-BoB			FRA	19 301	16 958	23 034	23 268	30 893	30 893		8 473		
8a-BoB	**none**	**none**	**Total**	**19 301**	**16 958**	**23 034**	**23 268**	**30 893**	**30 893**		**8 473**	**44 652**	-
8a-BoB	none	SBCIIIART5	FRA								575		
8a-BoB	**none**	**SBCIIIART5**	**Total**								**575**	-	

Table 5.10.1.10 – Bay of Biscay – 8b - Trend in GT*days at sea by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2004-2013. Derogations are sorted by gear, special condition (SPECON), and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
8b-BoB	BEAM	none	BEL	219 108	278 855								
8b-BoB			FRA				24				25	70	
8b-BoB	**BEAM**	**none**	**Total**	**219 108**	**278 855**	-	**24**	-	-	-	**25**	**70**	-
8b-BoB	BEAM	SBcIIIart5	BEL			261 668	266 987	229 616	266 078	246 721	251 746	194 669	224 392
8b-BoB	**BEAM**	**SBcIIIart5**	**Total**	-	-	**261 668**	**266 987**	**229 616**	**266 078**	**246 721**	**251 746**	**194 669**	**224 392**
8b-BoB	DEM_SEINE	none	ESP									104	
8b-BoB			FRA							21 909	43 928	23 852	24 131
8b-BoB			NED						2 016	3 116		448	
8b-BoB	**DEM_SEINE**	**none**	**Total**	-	-	-	-	-	**2 016**	**25 025**	**43 928**	**24 404**	**24 131**
8b-BoB	DEM_SEINE	SBcIIIart5	FRA									20 995	48 025
8b-BoB	**DEM_SEINE**	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	**20 995**	**48 025**
8b-BoB	DREDGE	none	ESP									262	160
8b-BoB			FRA	977	7 562	7 898	3 831	4 195	4 195	3 405	1 550	4 474	1 889
8b-BoB	**DREDGE**	**none**	**Total**	**977**	**7 562**	**7 898**	**3 831**	**4 195**	**4 195**	**3 405**	**1 550**	**4 736**	**2 049**
8b-BoB	DREDGE	SBcIIIart5	FRA							513	809	1 781	989
8b-BoB	**DREDGE**	**SBcIIIart5**	**Total**	-	-	-	-	-	-	**513**	**809**	**1 781**	**989**
8b-BoB	GILL	none	ENG		1 350	21 684	8 151						
8b-BoB			ESP									58 914	31 203
8b-BoB			FRA	76 740	199 742	209 516	181 784	182 323	182 323	162 668	93 898	62 761	59 119
8b-BoB			SCO	1 524				1 456		3 662	451		
8b-BoB	**GILL**	**none**	**Total**	**78 264**	**201 092**	**231 200**	**189 935**	**183 779**	**182 323**	**166 330**	**94 349**	**121 675**	**90 322**
8b-BoB	GILL	SBcIIIart5	FRA							28 799	34 174	45 208	77 878
8b-BoB	**GILL**	**SBcIIIart5**	**Total**	-	-	-	-	-	-	**28 799**	**34 174**	**45 208**	**77 878**
8b-BoB	LONGLINE	none	ENG	4 768	991	3 617	7 960	2 032					
8b-BoB			ESP									191 071	58 688
8b-BoB			FRA	11 176	30 294	34 170	35 334	24 677	24 677	89 333	90 663	63 770	48 707
8b-BoB			IRL				534						
8b-BoB			SCO					550					
8b-BoB	**LONGLINE**	**none**	**Total**	**15 944**	**31 285**	**37 787**	**43 828**	**27 259**	**24 677**	**89 333**	**90 663**	**254 841**	**107 395**
8b-BoB	LONGLINE	SBcIIIart5	FRA							4 439	6 705	12 110	14 236
8b-BoB	**LONGLINE**	**SBcIIIart5**	**Total**	-	-	-	-	-	-	**4 439**	**6 705**	**12 110**	**14 236**
8b-BoB	OTTER	none	ENG	42 681	28 110	31 001					4 786	10 668	
8b-BoB			ESP									1 132 888	1 109 394
8b-BoB			FRA	321 613	729 816	729 838	814 028	772 189	770 900	142 103	249 768	180 412	206 059
8b-BoB			IRL			1 450							
8b-BoB	**OTTER**	**none**	**Total**	**364 294**	**757 926**	**762 289**	**814 028**	**772 189**	**770 900**	**142 103**	**254 554**	**1 323 968**	**1 315 453**
8b-BoB	OTTER	SBcIIIart5	BEL									747	
			FRA							378 130	296 298	395 077	404 213
8b-BoB	**OTTER**	**SBcIIIart5**	**Total**	-	-	-	-	-	-	**378 130**	**296 298**	**395 077**	**404 213**
8b-BoB	PEL_SEINE	none	ESP									197 401	432 935
8b-BoB			FRA	41 802	34 345	56 725	28 751	26 699	26 699	23 314	14 786	30 027	16 125
8b-BoB	**PEL_SEINE**	**none**	**Total**	**41 802**	**34 345**	**56 725**	**28 751**	**26 699**	**26 699**	**23 314**	**14 786**	**227 428**	**449 060**
8b-BoB	PEL_SEINE	SBcIIIart5	FRA										76
8b-BoB	**PEL_SEINE**	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	**76**
8b-BoB	PEL_TRAWL	none	ENG	33 162	6 093				23 279				47 890
8b-BoB			ESP									1 982	1 671
8b-BoB			FRA	85 132	251 242	383 614	247 545	112 229	108 524	88 266	59 344	96 555	39 610
8b-BoB			GER			12 080							7 893
8b-BoB			IRL	53 739	45 144	26 261	16 751	8 752					
8b-BoB			NED			26 250		9 668			6 548		74 342
8b-BoB	**PEL_TRAWL**	**none**	**Total**	**172 033**	**302 479**	**448 205**	**264 296**	**130 649**	**131 803**	**88 266**	**65 892**	**98 537**	**171 406**
8b-BoB	PEL_TRAWL	SBcIIIart5	FRA							9 008	11 120	19 838	33 163
8b-BoB	**PEL_TRAWL**	**SBcIIIart5**	**Total**	-	-	-	-	-	-	**9 008**	**11 120**	**19 838**	**33 163**
8b-BoB	POTS	none	ESP									246	240
8b-BoB			FRA	5 910	2 106	3 877	5 674	306	306	2 208	2 630	1 451	651
8b-BoB	**POTS**	**none**	**Total**	**5 910**	**2 106**	**3 877**	**5 674**	**306**	**306**	**2 208**	**2 630**	**1 697**	**891**
8b-BoB	POTS	SBcIIIart5	FRA							3 383	2 478	6 415	4 197
8b-BoB	**POTS**	**SBcIIIart5**	**Total**	-	-	-	-	-	-	**3 383**	**2 478**	**6 415**	**4 197**
8b-BoB	TRAMMEL	none	ESP									785	519
8b-BoB			FRA	156 696	363 199	402 465	375 874	373 502	373 038	23 479	20 151	49 844	37 489
8b-BoB	**TRAMMEL**	**none**	**Total**	**156 696**	**363 199**	**402 465**	**375 874**	**373 502**	**373 038**	**23 479**	**20 151**	**50 629**	**38 008**
8b-BoB	TRAMMEL	SBcIIIart5	FRA							367 288	373 075	436 472	427 911
8b-BoB	**TRAMMEL**	**SBcIIIart5**	**Total**	-	-	-	-	-	-	**367 288**	**373 075**	**436 472**	**427 911**
8b-BoB	none	none	ESP									40 841	
8b-BoB			FRA	51 452	69 122	24 471	14 195	21 166	21 166		8 645		
8b-BoB			IRL		15 840								
8b-BoB	**none**	**none**	**Total**	**51 452**	**84 962**	**24 471**	**14 195**	**21 166**	**21 166**	-	**8 645**	**40 841**	-
8b-BoB	none	SBCIIIART5	FRA								1 110		
8b-BoB	**none**	**SBCIIIART5**	**Total**	-	-	-	-	-	-	-	**1 110**	-	-

Table 5.10.1.11 – Bay of Biscay – 8a - Trend in Number of vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2004-2013. Derogations are sorted by gear, special condition (SPECON), and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
8a-BoB	BEAM	none	BEL	19	20								
8a-BoB			ENG					1					
8a-BoB			FRA	4	1	1					2		1
8a-BoB	**BEAM**	**none**	**Total**	**23**	**21**	**1**		**1**			**2**	-	**1**
8a-BoB	BEAM	SBcIIIart5	BEL			18	20	14	18	13	15	14	13
8a-BoB			FRA							1			
8a-BoB	**BEAM**	**SBcIIIart5**	**Total**			**18**	**20**	**14**	**18**	**14**	**15**	**14**	**13**
8a-BoB	DEM_SEINE	NONE	FRA							5	5	2	4
8a-BoB			NED						1				
8a-BoB	**DEM_SEINE**	**none**	**Total**						**1**	**5**	**5**	**2**	**4**
8a-BoB	DEM_SEINE	SBCIIIART5	FRA								1	5	7
8a-BoB	**DEM_SEINE**	**SBCIIIART5**	**Total**								**1**	**5**	**7**
8a-BoB	DREDGE	none	FRA	117	136	80	84	102	92	61	61	56	65
8a-BoB			IRL										
8a-BoB	**DREDGE**	**none**	**Total**	**117**	**136**	**80**	**84**	**102**	**92**	**61**	**61**	**56**	**65**
8a-BoB	DREDGE	SBcIIIart5	FRA							9	10	27	28
8a-BoB	**DREDGE**	**SBcIIIart5**	**Total**							**9**	**10**	**27**	**28**
8a-BoB	GILL	none	ENG	1	1	3	3	3	3	3	1	3	1
8a-BoB			ESP									8	9
8a-BoB			FRA	63	67	92	72	75	74	36	36	23	27
8a-BoB			SCO	2	1	1	1	1	1	1	1	1	1
8a-BoB	**GILL**	**none**	**Total**	**66**	**69**	**96**	**76**	**79**	**78**	**40**	**38**	**35**	**38**
8a-BoB	GILL	SBcIIIart5	FRA							20	18	23	26
8a-BoB	**GILL**	**SBcIIIart5**	**Total**							**20**	**18**	**23**	**26**
8a-BoB	LONGLINE	none	ENG	2	3	2	2	1					
8a-BoB			ESP									111	26
8a-BoB			FRA	28	29	55	50	49	33	41	38	34	37
8a-BoB			IRL		1	1							
8a-BoB			SCO			1	1	2		1	2	1	1
8a-BoB	**LONGLINE**	**none**	**Total**	**30**	**33**	**59**	**53**	**52**	**33**	**42**	**40**	**146**	**64**
8a-BoB	LONGLINE	SBcIIIart5	FRA							8	7	16	20
8a-BoB	**LONGLINE**	**SBcIIIart5**	**Total**							**8**	**7**	**16**	**20**
8a-BoB	OTTER	none	DEN				1		2				
8a-BoB			ENG	2		2			2	1	2		
8a-BoB			ESP									10	10
8a-BoB			FRA	276	326	470	457	334	276	128	117	94	93
8a-BoB			IRL	1		1							
8a-BoB			NIR						1				
8a-BoB			SCO									1	1
8a-BoB	**OTTER**	**none**	**Total**	**279**	**326**	**473**	**458**	**334**	**281**	**129**	**119**	**105**	**104**
8a-BoB	OTTER	SBcIIIart5	BEL									1	
			FRA							85	77	95	91
8a-BoB	**OTTER**	**SBcIIIart5**	**Total**							**85**	**77**	**95**	**91**
8a-BoB	PEL_SEINE	none	ESP									2	11
8a-BoB			FRA	26	18	18	18	14	14	13	21	21	15
8a-BoB	**PEL_SEINE**	**none**	**Total**	**26**	**18**	**18**	**18**	**14**	**14**	**13**	**21**	**23**	**26**
8a-BoB	PEL_SEINE	SBcIIIart5	FRA							1		1	1
8a-BoB	**PEL_SEINE**	**SBcIIIart5**	**Total**							**1**	-	**1**	**1**
8a-BoB	PEL_TRAWL	none	DEN			1	9	1	1	1	1	1	3
8a-BoB			ENG	4	3	2	2	3	4	3	2		2
8a-BoB			ESP									1	
8a-BoB			FRA	103	104	77	76	21	27	35	38	38	30
8a-BoB			GER	3	4	4		2	1	2	2		3
8a-BoB			IRL	1	2	2	1		1	1		2	2
8a-BoB			NED	4	6	8	2	3	2	2	1		4
8a-BoB			NIR						1				
8a-BoB			SCO						1				
8a-BoB	**PEL_TRAWL**	**none**	**Total**	**115**	**119**	**94**	**90**	**30**	**38**	**44**	**44**	**42**	**44**
8a-BoB	PEL_TRAWL	SBcIIIart5	FRA							12	8	15	21
8a-BoB	**PEL_TRAWL**	**SBcIIIart5**	**Total**							**12**	**8**	**15**	**21**
8a-BoB	POTS	none	ENG	1									
8a-BoB			FRA	16	12	16	11	4	4	40	39	27	29
8a-BoB			GER	1		2	2	1					
8a-BoB	**POTS**	**none**	**Total**	**18**	**12**	**18**	**13**	**5**	**4**	**40**	**39**	**27**	**29**
8a-BoB	POTS	SBcIIIart5	FRA							4	9	13	14
8a-BoB	**POTS**	**SBcIIIart5**	**Total**							**4**	**9**	**13**	**14**
8a-BoB	TRAMMEL	none	ENG					1					
8a-BoB			FRA	62	67	87	109	116	131	23	21	15	14
8a-BoB	**TRAMMEL**	**none**	**Total**	**62**	**67**	**87**	**109**	**117**	**131**	**23**	**21**	**15**	**14**
8a-BoB	TRAMMEL	SBcIIIart5	FRA							72	70	70	69
8a-BoB	**TRAMMEL**	**SBcIIIart5**	**Total**							**72**	**70**	**70**	**69**
8a-BoB	none	none	ESP									11	
8a-BoB			FRA	41	41	41	41	59	59		38		
8a-BoB	**none**	**none**	**Total**	**41**	**41**	**41**	**41**	**59**	**59**	-	**38**	**11**	-
8a-BoB	none	SBCIIIART5	FRA									5	
8a-BoB	**none**	**SBCIIIART5**	**Total**								-	**5**	

Table 5.10.1.12 – Bay of Biscay – 8b - Trend in Number of vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2004-2013. Derogations are sorted by gear, special condition (SPECON), and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
8b-BoB	BEAM	none	BEL	19	23								
8b-BoB			FRA				1				1	1	
8b-BoB	**BEAM**	**none**	**Total**	**19**	**23**		**1**				**1**	**1**	-
8b-BoB	BEAM	SBcIIIart5	BEL			16	19	14	18	13	15	13	13
8b-BoB	**BEAM**	**SBcIIIart5**	**Total**			**16**	**19**	**14**	**18**	**13**	**15**	**13**	**13**
8b-BoB	DEM_SEINE	none	ESP									1	
8b-BoB			FRA							4	5	3	4
8b-BoB			NED						1	1		1	
8b-BoB	**DEM_SEINE**	**none**	**Total**						**1**	**5**	**5**	**5**	**4**
8b-BoB	DEM_SEINE	SBcIIIart5	FRA									4	6
8b-BoB	**DEM_SEINE**	**SBcIIIart5**	**Total**									**4**	**6**
8b-BoB	DREDGE	none	ESP									1	1
8b-BoB			FRA	8	28	19	24	31	31	17	23	20	18
8b-BoB	**DREDGE**	**none**	**Total**	**8**	**28**	**19**	**24**	**31**	**31**	**17**	**23**	**21**	**19**
8b-BoB	DREDGE	SBcIIIart5	FRA							5	8	10	9
8b-BoB	**DREDGE**	**SBcIIIart5**	**Total**							**5**	**8**	**10**	**9**
8b-BoB	GILL	none	ENG		1	1	1						
8b-BoB			ESP									9	8
8b-BoB			FRA	31	56	60	55	55	56	28	20	16	18
8b-BoB			SCO	1				1		1	1		
8b-BoB	**GILL**	**none**	**Total**	**32**	**57**	**61**	**56**	**56**	**56**	**29**	**21**	**25**	**26**
8b-BoB	GILL	SBcIIIart5	FRA							19	17	23	27
8b-BoB	**GILL**	**SBcIIIart5**	**Total**							**19**	**17**	**23**	**27**
8b-BoB	LONGLINE	none	ENG	1	1	1	1	1					
8b-BoB			ESP									106	54
8b-BoB			FRA	11	26	35	25	24	15	31	27	21	21
8b-BoB			IRL				1						
8b-BoB			SCO					1					
8b-BoB	**LONGLINE**	**none**	**Total**	**12**	**27**	**36**	**27**	**26**	**15**	**31**	**27**	**127**	**75**
8b-BoB	LONGLINE	SBcIIIart5	FRA							7	9	17	19
8b-BoB	**LONGLINE**	**SBcIIIart5**	**Total**							**7**	**9**	**17**	**19**
8b-BoB	OTTER	none	ENG	2	2	2					1	1	
8b-BoB			ESP									15	12
8b-BoB			FRA	74	123	155	138	135	158	44	39	33	29
8b-BoB			IRL			1							
8b-BoB	**OTTER**	**NONE**	**Total**	**76**	**125**	**158**	**138**	**135**	**158**	**44**	**40**	**49**	**41**
8b-BoB	OTTER	SBcIIIart5	BEL									1	
			FRA							45	48	62	61
8b-BoB	**OTTER**	**SBcIIIart5**	**Total**							**45**	**48**	**63**	**61**
8b-BoB	PEL_SEINE	none	ESP									83	82
8b-BoB			FRA	10	8	13	7	7	7	6	6	6	3
8b-BoB	**PEL_SEINE**	**none**	**Total**	**10**	**8**	**13**	**7**	**7**	**7**	**6**	**6**	**89**	**85**
8b-BoB	PEL_SEINE	SBcIIIart5	FRA										1
8b-BoB	**PEL_SEINE**	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	**1**
8b-BoB	PEL_TRAWL	none	ENG	2	1				2				3
8b-BoB			ESP									1	1
8b-BoB			FRA	93	158	178	80	32	44	22	23	16	11
8b-BoB			GER			1							1
8b-BoB			IRL	2	3	2	2	1					
8b-BoB			NED			1		1			1		4
8b-BoB	**PEL_TRAWL**	**none**	**Total**	**97**	**162**	**182**	**82**	**34**	**46**	**22**	**24**	**17**	**20**
8b-BoB	PEL_TRAWL	SBcIIIart5	FRA							7	9	11	11
8b-BoB	**PEL_TRAWL**	**SBcIIIart5**	**Total**							**7**	**9**	**11**	**11**
8b-BoB	POTS	none	ESP									3	1
8b-BoB			FRA	5	2	11	5	2	2	11	11	5	7
8b-BoB	**POTS**	**none**	**Total**	**5**	**2**	**11**	**5**	**2**	**2**	**11**	**11**	**8**	**8**
8b-BoB	POTS	SBcIIIart5	FRA							4	6	6	7
8b-BoB	**POTS**	**SBcIIIart5**	**Total**							**4**	**6**	**6**	**7**
8b-BoB	TRAMMEL	none	ESP									3	2
8b-BoB			FRA	54	66	90	103	111	104	12	13	7	11
8b-BoB	**TRAMMEL**	**none**	**Total**	**54**	**66**	**90**	**103**	**111**	**104**	**12**	**13**	**10**	**13**
8b-BoB	TRAMMEL	SBcIIIart5	FRA							61	67	77	74
8b-BoB	**TRAMMEL**	**SBcIIIart5**	**Total**							**61**	**67**	**77**	**74**
8b-BoB	none	none	ESP									30	
8b-BoB			FRA	76	95	81	47	61	61		29		
8b-BoB			IRL		1								
8b-BoB	**none**	**NONE**	**Total**	**76**	**96**	**81**	**47**	**61**	**61**		**29**	**30**	-
8b-BoB	none	SBCIIIART5	FRA								4		
8b-BoB	**none**	**SBCIIIART5**	**Total**								**4**		

5.10.2 ToR 1.b Fishing capacity in GT of relevant vessels by Member State and fisheries

Fishing capacity trends in GT is only available for Belgian vessels since 2004 consequently trend in fishing capacity GT is only represented for the Belgium beam trawl fleet. STECF 14-13 observed a relative stability of fishing capacity in the period for this fleet in the two ICES division 8a and 8b.

STECF 14-13 noted that fishing capacity was provided by Spain in 2012 only in GT and for French in 2012 and 2013 but in kW as this field is asked as kW or GT depending on the area and then has difficulties to be filled in (see Section 4 of the report).

Table 5.10.2.1 – Bay of Biscay 8a - Trend in fishing capacity (GT) concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2004-2013. Derogations are sorted by gear, special condition (SPECON), and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
8a-BoB	BEAM	none	BEL	6 945	7 526								
8a-BoB	BEAM	SBcIIIart5	BEL			6 611	7 237	5 118	6 957	4 946	5 661	5 197	5 207
8a-BoB	OTTER	SBCIIIart5	BEL									284	

Table 5.10.2.2 – Bay of Biscay 8b - Trend in fishing capacity (GT) concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2004-2013. Derogations are sorted by gear, special condition (SPECON), and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
8b-BoB	BEAM	none	BEL	6 944	8 226								
8b-BoB	BEAM	SBcIIIart5	BEL			5 781	6 871	5 118	6 591	4 946	5 661	4 913	5 207
8b-BoB	OTTER	SBCIIIart5	BEL									284	

5.10.3 ToR 1.c Catches (landings and discards) of common sole in weight and numbers at age by fisheries

The following section provides quantities of common sole landings by fisheries for the ICES division 8a and 8b. Some discard estimates are available since 2009 but seem to be more complete since 2010. They are presented below with their coverage index. They have been calculated for Belgium beam trawl fleet since 2009 until 2013 (except for sole in 2012), for French fleets since 2010 and for Spanish fleets since 2012. They often receive the lowest ranking from the coverage index but seem to be more believable than in previous years since France has resubmitted discards estimates for 2010 until 2012. Since 2010, they are available for a large part of the fisheries involved in the total landings. **Nevertheless care is required in the use of these data to draw firm conclusions about catch composition (see coverage index). STECF 14-13 notes that information collected on discards is incomplete, so the apparent absence of discards in the figures or tables for a given species/gear does not necessarily mean zero discards.**

Apart from the Belgium beam trawl fleet (1-2% of the catches in 8a and ~20% in 8b) almost all sole landings are French. Spanish fleets have few sole landings. The main French fleets involved in common sole catches in 8a are the trammel net fleet (65%, increasing on the period), the otter trawl fleet (31% in 2013, stable on the period), and the gill net fleet (3%, decreasing on the period). The main French fleets involved in common sole catches in 8b are the trammel net fleet (64%, increasing on the period), the otter trawl fleet (17%, stable on the period) and the gill net fleet (2%, decreasing on the period).

The catches (landings and discards) of sole in weight and numbers at age by fisheries are scarce and are almost available only for Belgium beam trawl fleet on the period.

Table 5.10.3.1 – Bay of Biscay – 8a - Trend in total landings (t) for common sole for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2004-2013. Derogations are sorted by gear (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

Length Class	SPECIES	REG_AREA	REG_GEAR	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
o. 10m.	SOL	8a-BoB	BEAM	27	33	67	73	16	38	36	20	35	16
			DEM_SEINE							0	1	1	2
			DREDGE	2	2	2	3	2	2	0	1	0	2
			GILL	185	222	189	119	127	127	95	56	31	46
			LONGLINE	4	10	8	0	0	0	2	0	0	0
			OTTER	567	592	693	712	564	561	491	551	513	508
			PEL_SEINE			0							0
			PEL_TRAWL	0	0	0	1	5	5	1	4	2	1
			POTS			0				0	2	0	0
			TRAMMEL	616	787	1 008	932	1 124	1 124	795	1 171	944	1 086
			none			5	0	0	0				
Sum o.10m.				1 401	1 647	1 972	1 841	1 839	1 857	1 422	1 805	1 525	1 660

Table 5.10.3.2 – Bay of Biscay – 8a – Discards estimates (t) and their coverage index for common sole for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2009-2013. Derogations are sorted by gear and SPECON (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

Length Class	SPECIES	REG_AREA	REG_GEAR	SPECON	2009 L	2009 D	2009 R	2009 DQI	2010 L	2010 D	2010 R	2010 DQI	2011 L	2011 D	2011 R	2011 DQI	2012 L	2012 D	2012 R	2012 DQI	2013 L	2013 D	2013 R	2013 DQI
o. 10m.	SOL	8a-BoB	BEAM	none									0								0			
			BEAM	SBcIIIart5	38	1	0.025	A	36	2	0.060	A	19	0	0.023	A	35				15	0	0.003	A
			DEM_SEIN	none					0				1	1	0.688	C					0			
			DEM_SEIN	SBcIIIart5													1				2			
			DREDGE	none	2				0				0				0				1			
			DREDGE	SBcIIIart5					0				0				0				0			
			GILL	none	127				7	-		C	6				6				4			
			GILL	SBcIIIart5					88	0	0.001	C	50				25				42			
			LONGLINE	none	0				0				0				0				0			
			LONGLINE	SBcIIIart5					2												0			
			OTTER	none	561				125	11	0.080	B	153	10	0.064	B	100	11	0.096	C	87	10	0.102	C
			OTTER	SBcIIIart5					366	39	0.097	B	398	24	0.057	B	413	112	0.214	B	421	28	0.062	C
			PEL_SEINE	none																				
			PEL_SEINE	SBcIIIart5																	0			
			PEL_TRAWL	none	5				0				2				0				0			
			PEL_TRAWL	SBcIIIart5					1				2				2				1			
			POTS	none					0				2				0				0			
			POTS	SBcIIIart5					0				0				0				0			
			TRAMMEL	none	1 124				22	0	0.004	C	17	0	0.008	C	6	0	0.018	C	14	0	0.002	C
			TRAMMEL	SBcIIIart5					773	5	0.006	B	1 154	5	0.005	C	938	32	0.033	C	1 073	1	0.001	C
			NONE	none	0																			
Total					1 857	1			1 422	57			1 805	42			1 525	154			1 660	39		
% Landings with discards estimates					2.1%				99.7%				96.5%				95.5%				97.0%			

Table 5.10.3.3 – Bay of Biscay – 8b - Trend in total landings (t) for common sole for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2004-2013. Derogations are sorted by gear (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

Length Class	SPECIES	REG_AREA	REG_GEAR	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
o. 10m.	SOL	8b-BoB	BEAM	292	316	313	325	271	324	416	365	351	296
			DEM_SEINE								0	0	0
			DREDGE		0	0	0	0	0	0	1	0	0
			GILL	108	164	81	37	32	32	23	43	34	33
			LONGLINE	5	0	1	0	0	0	1	1	1	0
			OTTER	179	273	197	236	213	212	304	310	262	310
			PEL_SEINE	0						0	0		
			PEL_TRAWL	0	1	0	0	0	0	2	1	5	3
			POTS			0	0			0	0	3	0
			TRAMMEL	526	862	831	812	956	953	819	1 073	1 049	1 136
			none	1	0		0	0	0			0	0
Sum o.10m.				1 112	1 618	1 424	1 411	1 472	1 521	1 565	1 793	1 706	1 781

Table 5.10.3.4 – Bay of Biscay – 8b – Discards estimates (t) and their coverage index for common sole for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2009-2013. Derogations are sorted by gear and SPECON (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

Length Class	SPECIES	REG_AREA	REG_GEAR	SPECON	2009 L	2009 D	2009 R	2009 DQI	2010 L	2010 D	2010 R	2010 DQI	2011 L	2011 D	2011 R	2011 DQI	2012 L	2012 D	2012 R	2012 DQI	2013 L	2013 D	2013 R	2013 DQI
o. 10m.	SOL	8b-BoB	BEAM	none									0				0							
			BEAM	SBclllart5	324	8	0.025	A	416	26	0.060	A	364	8	0.023	A	351				296	1	0.003	A
			DEM_SEINE	none									0								0			
			DEM_SEINE	SBclllart5													0				0			
			DREDGE	none	0				0				0				0				0			
			DREDGE	SBclllart5					0				1				0				0			
			GILL	none	32				3	-		C	2	-		C	1	-		C	1			
			GILL	SBclllart5					20	-		C	41				33	-		B	32			
			LONGLINE	none	0				0				0				1				0			
			LONGLINE	SBclllart5					0				1				1				0			
			OTTER	none	212				24	0	0.006	C	32	1	0.031	C	16	1	0.053	C	27	0	0.007	C
			OTTER	SBclllart5					280	2	0.009	C	278	11	0.037	C	246	16	0.061	C	283	6	0.021	C
			PEL_SEINE	none					0				0											
			PEL_TRAWL	none	0				0				0				0				0			
			PEL_TRAWL	SBclllart5					2				1				5				3			
			POTS	none					0				0											
			POTS	SBclllart5					0				0				3				0			
			TRAMMEL	none	953				13	0	0.034	B	7	0	0.036	B	2	0	0.027	C	3	0	0.014	C
			TRAMMEL	SBclllart5					806	16	0.019	A	1 066	24	0.022	A	1 047	15	0.014	A	1 133	16	0.014	C
			NONE	none	0												0				0			
Total					1 521	8			1 565	45			1 793	44			1 706	32			1 781	23		
% Landings with discards estimates					21.3%				99.8%				97.5%				78.9%				99.7%			

Table 5.10.3.5 – Bay of Biscay – 8a - Trend in total landings (t) and discards (t) for common sole (SOL) for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2004-2013. Derogations are sorted by gear, special conditions (SPECON) and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

SPECIES	REG_AREA	REG_GEAR	SPECON	COUNTRY	2004		2005		2006		2007		2008		2009		2010		2011		2012		2013	
					L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D
SOL	8a-BoB	BEAM	none	BEL	27		32																	
				ENG									0											
				FRA	1		1		0										0				0	
		BEAM	**none**	**Total**	27	-	33	-	0	-	-	-	0	-	-	-	-	-	0	-	-	-	0	-
		BEAM	SBcIIIart5	BEL					67		73		16		38	1	36	2	19	0	35		15	0
				FRA													0	0						
		BEAM	**SBcIIIart5**	**Total**	-	-	-	-	67	-	73	-	16	-	38	1	36	2	19	0	35	-	15	0
		DEM_SEINE	none	FRA													0		1	1			0	
		DEM_SEINE	**none**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	0	-	1	1	-	-	0	-
		DEM_SEINE	SBcIIIart5	FRA																	1		2	
		DEM_SEINE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	2	-
		DREDGE	none	FRA	2		2		2		3		2		2		0		0		0		1	
		DREDGE	**none**	**Total**	2	-	2	-	2	-	3	-	2	-	2	-	0	-	0	-	0	-	1	-
		DREDGE	SBcIIIart5	FRA													0		0		0		0	
		DREDGE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	-	0	-	0	-
		GILL	none	ENG							0		0		0									
				FRA	185		222		189		119		127		127		7	-	6		6		4	
		GILL	**none**	**Total**	185	-	222	-	189	-	119	-	127	-	127	-	7	-	6	-	6	-	4	-
		GILL	SBcIIIart5	FRA													88	0	50		25		42	
		GILL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	88	0	50	-	25	-	42	-
		LONGLINE	none	FRA	4		10		8		0		0		0		0		0		0		0	
		LONGLINE	**none**	**Total**	4	-	10	-	8	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
		LONGLINE	SBcIIIart5	FRA													2						0	
		LONGLINE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	0	-
		OTTER	none	ESP																	0	0	2	0
				FRA	567		592		693		712		564		561		125	11	153	10	100	11	86	10
		OTTER	**none**	**Total**	567	-	592	-	693	-	712	-	564	-	561	-	125	11	153	10	100	11	87	10
		OTTER	SBcIIIart5	FRA													366	39	398	24	413	112	421	28
		OTTER	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	366	39	398	24	413	112	421	28
		PEL_SEINE	none	FRA					0															
		PEL_SEINE	**none**	**Total**	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		PEL_SEINE	SBcIIIart5	FRA																			0	
		PEL_SEINE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-
		PEL_TRAWL	none	FRA	0		0		0		1		5		5		0		2		0		0	
		PEL_TRAWL	**none**	**Total**	0	-	0	-	0	-	1	-	5	-	5	-	0	-	2	-	0	-	0	-
		PEL_TRAWL	SBcIIIart5	FRA													1		2		2		1	
		PEL_TRAWL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	1	-	2	-	2	-	1	-
		POTS	none	FRA					0								0		2		0		0	
		POTS	**none**	**Total**	-	-	-	-	0	-	-	-	-	-	-	-	0	-	2	-	0	-	0	-
		POTS	SBcIIIart5	FRA													0		0		0		0	
		POTS	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	-	0	-	0	-
		TRAMMEL	none	FRA	616		787		1 008		932		1 124		1 124		22	0	17	0	6	0	14	0
		TRAMMEL	**none**	**Total**	616	-	787	-	1 008	-	932	-	1 124	-	1 124	-	22	0	17	0	6	0	14	0
		TRAMMEL	SBcIIIart5	FRA													773	5	1 154	5	938	32	1 073	1
		TRAMMEL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	773	5	1 154	5	938	32	1 073	1
		none	none	FRA					5		0		0		0									
		none	**none**	**Total**	-	-	-	-	5	-	0	-	0	-	0	-	-	-	-	-	-	-	-	-
	8a-BoB	**Total (all)**			1 401	-	1 647	-	1 972	-	1 841	-	1 839	-	1 857	1	1 422	57	1 805	42	1 525	154	1 660	39

Table 5.10.3.6 – Bay of Biscay – 8b - Trend in total landings (t) and discards (t) for common sole (SOL) for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2003-2012. Derogations are sorted by gear, special conditions (SPECON) and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

SPECIES	REG_AREA	REG_GEAR	SPECON	COUNTRY	2004		2005		2006		2007		2008		2009		2010		2011		2012		2013	
					L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D
SOL	8b-BoB	BEAM	none	BEL	292		316																	
				FRA															0		0			
		BEAM	**none**	**Total**	292	-	316	-	-	-	-	-	-	-	-	-	-	-	0	-	0	-	-	-
		BEAM	SBcIIIart5	BEL					313		325		271		324	8	416	26	364	8	351		296	1
		BEAM	**SBcIIIart5**	**Total**	-	-	-	-	313	-	325	-	271	-	324	8	416	26	364	8	351	-	296	1
		DEM_SEINE	none	FRA															0				0	
		DEM_SEINE	**none**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	0	-
		DEM_SEINE	SBcIIIart5	FRA																	0		0	
		DEM_SEINE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	-
		DREDGE	none	FRA			0		0		0		0		0		0		0		0		0	
		DREDGE	**none**	**Total**	-	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
		DREDGE	SBcIIIart5	FRA													0		1		0		0	
		DREDGE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	0	-	1	-	0	-	0	-
		GILL	none	ESP																	0	-	0	
				FRA	108		164		81		37		32		32		3	-	2	-	1	-	1	
		GILL	**none**	**Total**	108	-	164	-	81	-	37	-	32	-	32	-	3	-	2	-	1	-	1	-
		GILL	SBcIIIart5	FRA													20	-	41		33	-	32	
		GILL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	20	-	41	-	33	-	32	-
		LONGLINE	none	FRA	5		0		1		0		0		0		0		0		1		0	
		LONGLINE	**none**	**Total**	5	-	0	-	1	-	0	-	0	-	0	-	0	-	0	-	1	-	0	-
		LONGLINE	SBcIIIart5	FRA													0		1		1		0	
		LONGLINE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	0	-	1	-	1	-	0	-
		OTTER	none	ESP																	2	0	6	-
				FRA	179		273		197		236		213		212		24	0	32	1	13	1	21	0
		OTTER	**none**	**Total**	179	-	273	-	197	-	236	-	213	-	212	-	24	0	32	1	16	1	27	0
		OTTER	SBcIIIart5	FRA													280	2	278	11	246	16	283	6
		OTTER	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	280	2	278	11	246	16	283	6
		PEL_SEINE	none	FRA	0												0		0					
		PEL_SEINE	**none**	**Total**	0	-	-	-	-	-	-	-	-	-	-	-	0	-	0	-	-	-	-	-
		PEL_TRAWL	none	FRA	0		1		0		0		0		0		0		0		0		0	
		PEL_TRAWL	**none**	**Total**	0	-	1	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
		PEL_TRAWL	SBcIIIart5	FRA													2		1		5		3	
		PEL_TRAWL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	2	-	1	-	5	-	3	-
		POTS	none	FRA					0		0						0		0					
		POTS	**none**	**Total**	-	-	-	-	0	-	0	-	-	-	-	-	0	-	0	-	-	-	-	-
		POTS	SBcIIIart5	FRA													0		0		3		0	
		POTS	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	-	3	-	0	-
		TRAMMEL	none	ESP																	0	0	0	0
				FRA	526		862		831		812		956		953		13	0	7	0	2	0	3	0
		TRAMMEL	**none**	**Total**	526	-	862	-	831	-	812	-	956	-	953	-	13	0	7	0	2	0	3	0
		TRAMMEL	SBcIIIart5	FRA													806	16	1 066	24	1 047	15	1 133	16
		TRAMMEL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	806	16	1 066	24	1 047	15	1 133	16
		none	none	ESP																	0		0	
				FRA	1		0				0		0		0									
		none	**none**	**Total**	1	-	0	-	-	-	0	-	0	-	0	-	-	-	-	-	0	-	0	-
	8b-BoB	**Total (all)**			1 112	-	1 618	-	1 424	-	1 411	-	1 472	-	1 521	8	1 565	45	1 793	44	1 706	32	1 781	23

5.10.4 ToR 1.c Catches (landings and discards) of non-sole species in weight and numbers at age by fisheries

The following section provides quantities of associated species of common sole landings by fisheries for the ICES division 8a and 8b. Some discard estimates are available since 2009 but seem to be more complete since 2010. They are presented below with their coverage index. They have been calculated for Belgium beam trawl fleet since 2009 until 2013 (except for sole in 2012), for French fleets since 2010 and for Spanish fleets since 2012. They often receive the lowest ranking from the coverage index but seem to be more believable than in previous years since France has resubmitted discards estimates for 2010 until 2012. Since 2010, they are available for a large part of the fisheries involved in the total landings. **Nevertheless care is required in the use of these data to draw firm conclusions about catch composition (see coverage index). STECF 14-13 notes that information collected on discards is incomplete, so the apparent absence of discards in the figures or tables for a given species/gear does not necessarily mean zero discards.**

The catches (landings and discards) of associated species of common sole in weight and numbers at age by fisheries are scarce and are almost available only for Belgium beam trawl fleet on the period.

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Table 5.10.4.1 – Bay of Biscay – 8a - Trend in total landings (t) for major associated species of common sole for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2004-2013. Derogations are sorted by gear (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

Length Class	SPECIES	REG_AREA	REG_GEAR	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
o. 10m.	ANF	8a-BoB	BEAM	3	8	18	8	2	7	7	4	5	4
			DEM_SEINE							0	1	0	7
			DREDGE	1	1	0	0	1	1		0		0
			GILL	304	314	281	305	276	293	135	198	286	426
			LONGLINE	1	0	2	0	0	0	0	0	2	0
			OTTER	3 386	3 265	3 316	3 673	3 074	3 061	563	1 766	1 538	2 433
			PEL_SEINE										0
			PEL_TRAWL	37	0	1	2	4	4	6	10	2	2
			POTS		0	0	0			0	0	0	0
			TRAMMEL	245	207	302	222	293	293	10	90	70	320
			none			3	0	0	0			5	
Sum o.10m.				3 977	3 796	3 921	4 211	3 651	3 660	721	2 069	1 909	3 192
Length Class	SPECIES	REG_AREA	REG_GEAR	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
o. 10m.	HKE	8a-BoB	BEAM	2	6	2	1	0	0	0	0	0	0
			DEM_SEINE						-	30	28	47	93
			DREDGE	0	2	3	1	1	1	1	0	0	0
			GILL	1 404	2 207	1 115	698	1 871	1 843	5 059	5 983	6 745	7 450
			LONGLINE	2	0	1	1	2	2	63	340	1 573	3 200
			OTTER	1 095	1 274	1 048	1 413	1 850	1 838	1 241	1 227	2 128	1 940
			PEL_SEINE	0	0	0					1	0	27
			PEL_TRAWL	47	176	151	238	14	14	114	463	854	960
			POTS							1	1	0	0
			TRAMMEL	98	52	42	107	67	67	40	27	28	36
			none			1	2	0	0			288	81
Sum o.10m.				2 647	3 718	2 363	2 462	3 805	3 765	6 549	8 071	11 663	13 787
Length Class	SPECIES	REG_AREA	REG_GEAR	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
o. 10m.	NEP	8a-BoB	BEAM	4	7	1	1		0		0		
			DEM_SEINE										0
			DREDGE	0	2	0	0	1	1	2			0
			GILL	2	0	1	1	3	3	0	1	0	0
			OTTER	2 346	2 846	2 579	2 578	2 455	2 446	2 393	2 744	1 675	1 635
			PEL_SEINE										0
			PEL_TRAWL		0	2	3	34	34	2	18	5	1
			POTS	2	0					3	4	3	5
			TRAMMEL	1	1	5	0	0	0	3	1	1	0
			none			0	0	0	0				
Sum o.10m.				2 355	2 856	2 588	2 584	2 494	2 485	2 402	2 769	1 685	1 642
Length Class	SPECIES	REG_AREA	REG_GEAR	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
o. 10m.	WHG	8a-BoB	BEAM	0	0	0	1		0	0	0	0	0
			DEM_SEINE							66	111	116	116
			DREDGE	2	1	1	0	0	0	0	0	0	0
			GILL	33	43	54	42	34	34	36	30	44	41
			LONGLINE	63	69	148	294	167	167	142	182	186	223
			OTTER	331	430	308	265	167	166	347	432	379	389
			PEL_SEINE			0					0		0
			PEL_TRAWL	75	108	57	66	25	23	121	72	72	93
			POTS							1	27	8	0
			TRAMMEL	24	25	51	36	41	41	26	45	45	47
			none			0	1	0	0			0	
Sum o.10m.				528	675	620	705	435	432	740	900	851	911

Table 5.10.4.2 – Bay of Biscay – 8a – Discards estimates (t) and their coverage index for major associated species of common sole for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2009-2013. Derogations are sorted by gear and SPECON (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

Length Class	SPECIES	REG_AREA	REG_GEAR	SPECON	2009 L	2009 D	2009 R	2009 DQI	2010 L	2010 D	2010 R	2010 DQI	2011 L	2011 D	2011 R	2011 DQI	2012 L	2012 D	2012 R	2012 DQI	2013 L	2013 D	2013 R	2013 DQI
o. 10m.	ANF	8a-BoB	BEAM	none																				
			BEAM	SBclIIart5	7	3	0.262	A	7	2	0.210	A	4	1	0.131	A	5	1	0.141	A	4	1	0.150	A
			DEM_SEINE	none					0				1				0				1			
			DEM_SEINE	SBclIIart5													0				6			
			DREDGE	none	1								0								0			
			DREDGE	SBclIIart5																	0			
			GILL	none	293				134	0	0.002	C	193				193				300	22	0.067	C
			GILL	SBclIIart5					1	-		C	5				93				126	0	0.001	C
			LONGLINE	none	0				0				0				2				0			
			LONGLINE	SBclIIart5					0				0								0			
			OTTER	none	3 061				435	69	0.137	A	1 376	155	0.101	C	1 147	222	0.162	B	1 459	106	0.068	B
			OTTER	SBclIIart5					128	29	0.187	A	390	42	0.098	B	391	79	0.168	B	974	62	0.06	B
			PEL_SEINE	none																	0			
			PEL_SEINE	SBclIIart5																	0			
			PEL_TRAWL	none	4				6				10				2				0			
			PEL_TRAWL	SBclIIart5									0				0				2			
			POTS	none					0				0				0				0			
			POTS	SBclIIart5													0				0			
			TRAMMEL	none	293				5				59	2	0.036	B	22	1	0.06	A	163	1	0.004	C
			TRAMMEL	SBclIIart5					4	0	0.031	C	31	1	0.030	B	48	3	0.065	C	157	1	0.005	C
			NONE	none	0												5							
Total					3 660	3			721	100			2 069	201			1 909	306			3 192	192		
% Landings with discards estimates					0.2%				98.3%				89.9%				84.5%				99.7%			

Length Class	SPECIES	REG_AREA	REG_GEAR	SPECON	2009 L	2009 D	2009 R	2009 DQI	2010 L	2010 D	2010 R	2010 DQI	2011 L	2011 D	2011 R	2011 DQI	2012 L	2012 D	2012 R	2012 DQI	2013 L	2013 D	2013 R	2013 DQI
o. 10m.	HKE	8a-BoB	BEAM	none																				
			BEAM	SBclIIart5	0	0	0.498	A	0	0	0.453	A	0	1	0.832	A	0	1	0.874	A	0	1	0.854	A
			DEM_SEINE	none	-	-		A	30				28	6	0.163	C	10				13			
			DEM_SEINE	SBclIIart5									0				36				80			
			DREDGE	none	1				1				0				0				0			
			DREDGE	SBclIIart5													0							
			GILL	none	1 843				4 421	535	0.108	C	5 433	26	0.005	C	5 415	-		C	5 982	306	0.049	B
			GILL	SBclIIart5					639	29	0.043	C	550	6	0.011	C	1 329	-		C	1 468	68	0.044	C
			LONGLINE	none	2				62				340	-		C	1 572	-		C	3 196	189	0.056	C
			LONGLINE	SBclIIart5					1				0	-		C	1	-		C	4	0	0.072	C
			OTTER	none	1 838				575	765	0.571	A	708	759	0.518	B	1 473	2 057	0.583	C	1 218	876	0.419	C
			OTTER	SBclIIart5					666	671	0.502	A	519	553	0.516	B	655	918	0.584	B	722	936	0.564	B
			PEL_SEINE	none									1								27			
			PEL_SEINE	SBclIIart5													0				0			
			PEL_TRAWL	none	14				110	24	0.179	C	405	57	0.123	A	744	8	0.011	C	735	192	0.207	C
			PEL_TRAWL	SBclIIart5					4	4	0.451	C	58	22	0.273	C	109	3	0.031	C	226	68	0.231	C
			POTS	none					1				1				0				0			
			POTS	SBclIIart5					0				0				0				0			
			TRAMMEL	none	67				4	0	0.105	C	1	0	0.072	C	2	7	0.798	C	5			
			TRAMMEL	SBclIIart5					36	7	0.154	B	25	1	0.025	C	26	23	0.468	C	31			
			NONE	none	0												288				81			
Total					3 765	0			6 549	2 034			8 071	1 431			11 663	3 019			13 787	2 635		
% Landings with discards estimates					0.0%				98.6%				100.0%				97.1%				98.3%			

Table 5.10.4.2 (continue) – Bay of Biscay – 8a – Discards estimates (t) and their coverage index for major associated species of common sole for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2009-2013. Derogations are sorted by gear and SPECON (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

Length Class	SPECIES	REG_AREA	REG_GEAR	SPECON	2009 L	2009 D	2009 R	2009 DQI	2010 L	2010 D	2010 R	2010 DQI	2011 L	2011 D	2011 R	2011 DQI	2012 L	2012 D	2012 R	2012 DQI	2013 L	2013 D	2013 R	2013 DQI
o. 10m.	NEP	8a-BoB	BEAM	none																				
			BEAM	SBcIIIart5	0								0											
			DEM_SEINE	none																	0			
			DEM_SEINE	SBcIIIart5																	0			
			DREDGE	none	1				2												0			
			GILL	none	3				0				0				0				0			
			GILL	SBcIIIart5					0				1				0				0			
			OTTER	none	2 446				1 220	452	0.270	B	1 420	897	0.387	B	666	471	0.414	B	598	372	0.383	B
			OTTER	SBcIIIart5					1 173	417	0.263	A	1 325	847	0.390	B	1 010	715	0.415	B	1 037	585	0.361	B
			PEL_SEINE	SBcIIIart5																	0			
			PEL_TRAWL	none	34				1				17				0				0			
			PEL_TRAWL	SBcIIIart5					1				1				5				1			
			POTS	none					3				4				3				1			
			POTS	SBcIIIart5					0												4			
			TRAMMEL	none	0				2				1	-		C	1							
			TRAMMEL	SBcIIIart5					0				0	-		B	0				0			
			NONE	none	0																			
Total					2 485	-			2 402	870			2 769	1 744			1 685	1 185			1 642	956		
% Landings with discards estimates					0.0%				99.6%				99.2%				99.4%				99.6%			

Length Class	SPECIES	REG_AREA	REG_GEAR	SPECON	2009 L	2009 D	2009 R	2009 DQI	2010 L	2010 D	2010 R	2010 DQI	2011 L	2011 D	2011 R	2011 DQI	2012 L	2012 D	2012 R	2012 DQI	2013 L	2013 D	2013 R	2013 DQI
o. 10m.	WHG	8a-BoB	BEAM	none																				
			BEAM	SBcIIIart5	0	0	0.500	A	0	0	0.322	A	0	0	0.667	A	0	1	0.765	A	0			
			DEM_SEINE	none					66				111	8	0.065	C	15				13			
			DEM_SEINE	SBcIIIart5									0				101				103			
			DREDGE	none	0				0				0				0				0			
			DREDGE	SBcIIIart5					0								0							
			GILL	none	34				16	0	0.009	C	13	0	0.012	C	16				13	7	0.336	C
			GILL	SBcIIIart5					20	1	0.063	C	17	0	0.013	C	28				28	4	0.13	B
			LONGLINE	none	167				140				181	2	0.013	B	176	0	0.002	C	182	1	0.005	C
			LONGLINE	SBcIIIart5					2				0	-		C	10	0	0.007	C	42	0	0.003	C
			OTTER	none	166				125	322	0.721	C	177	52	0.228	B	145	42	0.225	B	124	43	0.258	C
			OTTER	SBcIIIart5					223	286	0.562	B	255	76	0.23	B	234	68	0.226	B	265	135	0.338	B
			PEL_SEINE	none									0								0			
			PEL_SEINE	SBcIIIart5																	0			
			PEL_TRAWL	none	23				119	228	0.658	C	68	39	0.365	C	29	0	0.007	C	34	9	0.203	C
			PEL_TRAWL	SBcIIIart5					2	1	0.284	C	4	2	0.321	C	42	0	0.007	C	59	14	0.195	C
			POTS	none					1				27				8				0			
			POTS	SBcIIIart5					0				0				0				0			
			TRAMMEL	none	41				6	7	0.566	C	3	2	0.416	C	4	2	0.349	C	3			
			TRAMMEL	SBcIIIart5					21	14	0.398	B	42	6	0.124	C	41	19	0.314	B	44			
			NONE	none	0												0							
Total					432	0			740	860			900	188			851	133			911	213		
% Landings with discards estimates					0.0%				71.8%				97.0%				80.1%				81.9%			

Table 5.10.4.3 – Bay of Biscay – 8b - Trend in total landings (t) for major associated species of common sole for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2004-2013. Derogations are sorted by gear (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

Length Class	SPECIES	REG_AREA	REG_GEAR	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
o. 10m.	ANF	8b-BoB	BEAM	6	172	121	134	186	188	172	191	196	368
			DEM_SEINE								1	0	5
			DREDGE		0	0					0		
			GILL	100	167	196	267	265	265	21	61	22	34
			LONGLINE	0	0	0	0	0	0	0	1	0	0
			OTTER	219	327	270	204	332	332	54	188	624	1 411
			PEL_SEINE									11	
			PEL_TRAWL	1	0	0	1	0	0	0	0	1	2
			POTS			0	0						0
			TRAMMEL	107	148	135	158	183	183	12	30	35	396
			none	0	0							5	5
Sum o.10m.				433	815	723	763	967	968	260	471	895	2 221
Length Class	SPECIES	REG_AREA	REG_GEAR	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
o. 10m.	HKE	8b-BoB	BEAM	10	9	8	1	3	6	5	5	3	7
			DEM_SEINE							7	12	18	43
			DREDGE		0	0	0	0	0	1	0	0	0
			GILL	201	683	262	328	642	642	1 039	674	1 111	1 283
			LONGLINE	20	34	56	77	52	52	385	480	418	321
			OTTER	139	442	222	493	636	634	396	239	1 031	1 825
			PEL_SEINE	0			0	0	0	1	1	0	
			PEL_TRAWL	1	41	10	33	37	37	34	14	13	41
			POTS			0	0			5	8	4	1
			TRAMMEL	26	53	43	88	91	90	137	154	137	145
			none	1	1		2	2	2			2	15
Sum o.10m.				399	1 263	600	1 023	1 464	1 464	2 009	1 588	2 737	3 681
Length Class	SPECIES	REG_AREA	REG_GEAR	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
o. 10m.	NEP	8b-BoB	BEAM		1	5	2	1	1	3	3	1	0
			DEM_SEINE										0
			DREDGE		0	0	0			0		0	0
			GILL	0		0		0	0	0			0
			OTTER	160	276	328	223	204	204	171	221	150	132
			PEL_TRAWL		0		0			0	1	2	0
			POTS				0			0			
			TRAMMEL		0	0	0	0	0	1	0	0	0
Sum o.10m.				160	278	334	225	205	205	176	225	153	133
Length Class	SPECIES	REG_AREA	REG_GEAR	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
o. 10m.	WHG	8b-BoB	BEAM	0	2	1	3	1	2	3	1	3	1
			DEM_SEINE						-	19	32	39	39
			DREDGE		0	0	0	0	0	0	0	0	0
			GILL	6	11	10	10	20	20	10	4	11	9
			LONGLINE	1	41	4	8	3	3	14	14	18	36
			OTTER	87	180	175	312	163	163	88	134	172	127
			PEL_TRAWL	5	22	30	67	20	20	35	5	2	9
			POTS				0			0	0	0	0
			TRAMMEL	7	17	23	36	46	46	20	35	37	37
			none	0			2	0	0			1	
Sum o.10m.				106	272	243	438	255	255	190	225	283	257

Table 5.10.4.4 – Bay of Biscay – 8b – Discards estimates (t) and their coverage index for major associated species of common sole for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2009-2013. Derogations are sorted by gear and SPECON (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

Length Class	SPECIES	REG_AREA	REG_GEAR	SPECON	2009 L	2009 D	2009 R	2009 DQI	2010 L	2010 D	2010 R	2010 DQI	2011 L	2011 D	2011 R	2011 DQI	2012 L	2012 D	2012 R	2012 DQI	2013 L	2013 D	2013 R	2013 DQI
o. 10m.	ANF	8b-BoB	BEAM	none																				
			BEAM	SBcIIIart5	188	67	0.262	A	172	46	0.210	A	191	29	0.131	A	196	32	0.141	A	368	65	0.150	A
			DEM_SEINE	none									1				0				1			
			DEM_SEINE	SBcIIIart5																	4			
			DREDGE	none																				
			DREDGE	SBcIIIart5									0											
			GILL	none	265				20				60				16				22	6	0.198	C
			GILL	SBcIIIart5					1				1				7	-		C	12	1	0.055	C
			LONGLINE	none	0				0				1				0				0			
			LONGLINE	SBcIIIart5																	0			
			OTTER	none	332				18	-		C	106	2	0.022	B	452	23	0.049	C	981	33	0.033	C
			OTTER	SBcIIIart5					36	-		C	82	2	0.027	B	172	6	0.031	B	430	9	0.019	C
			PEL_SEINE	none													11							
			PEL_TRAWL	none	0				0				0				1				0			
			PEL_TRAWL	SBcIIIart5													1				2			
			POTS	none																				
			POTS	SBcIIIart5																	0			
			TRAMMEL	none	183				4	0	0.030	A	3	0	0.099	B	3				188	59	0.24	C
			TRAMMEL	SBcIIIart5					8	0	0.011	A	28	1	0.047	B	32	18	0.354	B	208	39	0.158	C
			NONE	none													5				5			
Total					968	67			260	46			471	35			895	79			2 221	211		
% Landings with discards estimates					19.4%				91.7%				86.8%				95.9%				99.4%			

Length Class	SPECIES	REG_AREA	REG_GEAR	SPECON	2009 L	2009 D	2009 R	2009 DQI	2010 L	2010 D	2010 R	2010 DQI	2011 L	2011 D	2011 R	2011 DQI	2012 L	2012 D	2012 R	2012 DQI	2013 L	2013 D	2013 R	2013 DQI
o. 10m.	HKE	8b-BoB	BEAM	none																				
			BEAM	SBcIIIart5	6	6	0.499	A	5	4	0.458	A	5	23	0.832	A	3	17	0.874	A	7	43	0.854	A
			DEM_SEINE	none					7				12				9				9			
			DEM_SEINE	SBcIIIart5													8				34			
			DREDGE	none	0				0				0				0				0			
			DREDGE	SBcIIIart5					0				0				0							
			GILL	none	642				898	101	0.101	C	551	-		C	982	66	0.063	C	921	180	0.164	C
			GILL	SBcIIIart5					141	9	0.057	C	122	-		C	129	10	0.072	C	362	91	0.2	C
			LONGLINE	none	52				364				473				356	7	0.019	C	236	0	0.001	C
			LONGLINE	SBcIIIart5					21				7				62	0	0.003	A	85	-		C
			OTTER	none	634				67	2	0.024	C	54	3	0.047	B	824	921	0.528	C	1 468	209	0.125	C
			OTTER	SBcIIIart5					329	25	0.070	C	185	17	0.085	B	207	111	0.349	B	357	59	0.142	B
			PEL_SEINE	none	0				1				1				0							
			PEL_TRAWL	none	37				30	5	0.156	C	13				9	4	0.338	C	28			
			PEL_TRAWL	SBcIIIart5					5				2				4				12			
			POTS	none					4				6				4				1			
			POTS	SBcIIIart5					1				2				1				0			
			TRAMMEL	none	90				5	1	0.150	A	14	2	0.120	A	5	4	0.441	C	5	3	0.377	B
			TRAMMEL	SBcIIIart5					132	22	0.146	A	140	40	0.222	A	132	76	0.364	A	140	83	0.373	B
			NONE	none	2												2				15			
Total					1 464	6			2 009	169			1 588	85			2 737	1 217			3 681	668		
% Landings with discards estimates					0.4%				79.9%				67.5%				99.0%				95.0%			

Table 5.10.4.4 (continue) – Bay of Biscay – 8b – Discards estimates (t) and their coverage index for major associated species of common sole for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2009-2013. Derogations are sorted by gear and SPECON (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

Length Class	SPECIES	REG_AREA	REG_GEAR	SPECON	2009 L	2009 D	2009 R	2009 DQI	2010 L	2010 D	2010 R	2010 DQI	2011 L	2011 D	2011 R	2011 DQI	2012 L	2012 D	2012 R	2012 DQI	2013 L	2013 D	2013 R	2013 DQI
o. 10m.	NEP	8b-BoB	BEAM	none																				
			BEAM	SBcIIIart5	1				3				3				1				0			
			DEM_SEINE	none																	0			
			DREDGE	none													0				0			
			DREDGE	SBcIIIart5					0															
			GILL	none	0																			
			GILL	SBcIIIart5					0												0			
			OTTER	none	204				3				19	1	0.045	C	8	-		C	8	0	0.008	C
			OTTER	SBcIIIart5					169	25	0.131	B	202	27	0.118	C	141	-		B	125	2	0.018	B
			PEL_TRAWL	none									0								0			
			PEL_TRAWL	SBcIIIart5					0				1				2				0			
			POTS	none					0															
			TRAMMEL	none	0				0				0											
			TRAMMEL	SBcIIIart5					1	-		B	0				0				0			
			NONE	none	0																			
Total					205	-			176	25			225	28			153	-			133	2		
% Landings with discards estimates					0.0%				96.7%				98.0%				97.7%				99.3%			

Length Class	SPECIES	REG_AREA	REG_GEAR	SPECON	2009 L	2009 D	2009 R	2009 DQI	2010 L	2010 D	2010 R	2010 DQI	2011 L	2011 D	2011 R	2011 DQI	2012 L	2012 D	2012 R	2012 DQI	2013 L	2013 D	2013 R	2013 DQI
o. 10m.	WHG	8b-BoB	BEAM	none																				
			BEAM	SBcIIIart5	2	2	0.500	A	3	1	0.323	A	1	3	0.667	A	3	8	0.765	A	1			
			DEM_SEINE	none	-	-		A	19				32				23				15			
			DEM_SEINE	SBcIIIart5													16				24			
			DREDGE	none	0				0								0							
			DREDGE	SBcIIIart5					0				0				0				0			
			GILL	none	20				9	1	0.064	A	2	-		C	4	-		C	0	0	0.007	C
			GILL	SBcIIIart5					2	0	0.107	A	1				7	0	0.02	C	9	4	0.334	B
			LONGLINE	none	3				13				14				7	-		C	17			
			LONGLINE	SBcIIIart5					2				0				11	-		C	19			
			OTTER	none	163				24				33	1	0.02	A	84	56	0.403	C	50	286	0.852	C
			OTTER	SBcIIIart5					64	4	0.059	C	101	12	0.104	B	88	11	0.112	C	78	610	0.887	C
			PEL_TRAWL	none	20				35	-		C	3				0				1			
			PEL_TRAWL	SBcIIIart5					0				2				2				8			
			POTS	none					0				0											
			POTS	SBcIIIart5					0				0								0			
			TRAMMEL	none	46				0	0	0.459	A	1	4	0.784	A	0	0	0.426	A	0	0	0.667	B
			TRAMMEL	SBcIIIart5					20	96	0.829	A	34	133	0.796	A	37	40	0.52	A	37	56	0.603	B
			NONE	none	0												1							
Total					255	2			190	103			225	152			283	116			257	957		
% Landings with discards estimates					0.7%				69.6%				76.7%				85.0%				67.3%			

Fig. 5.10.4.1 – Bay of Biscay – 8a - Trend in total landings and discards estimates (t) for common sole and major associated species for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006, 2003-2013. Derogations are sorted by gear (o. 10m length vessels). Note that information collected on discards is incomplete, so the apparent absence of discards in the figures for a given species/gear does not necessarily mean zero discards. Data qualities are summarised in Section 4 of the report.

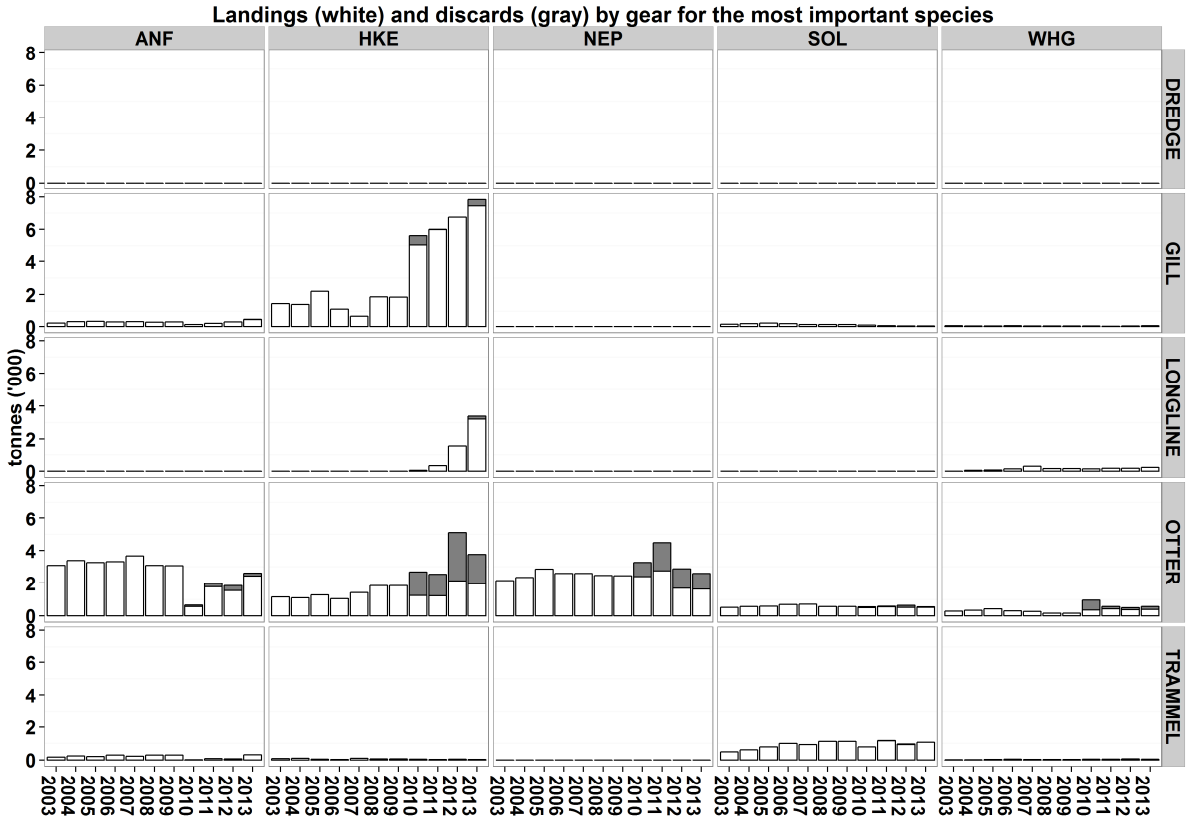


Fig. 5.10.4.1 (continue) – Bay of Biscay – 8a - Trend in total landings and discards estimates (t) for common sole and major associated species for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006, 2003-2013. Derogations are sorted by gear (o. 10m length vessels). Note that information collected on discards is incomplete, so the apparent absence of discards in the figures for a given species/gear does not necessarily mean zero discards. Data qualities are summarised in Section 4 of the report.

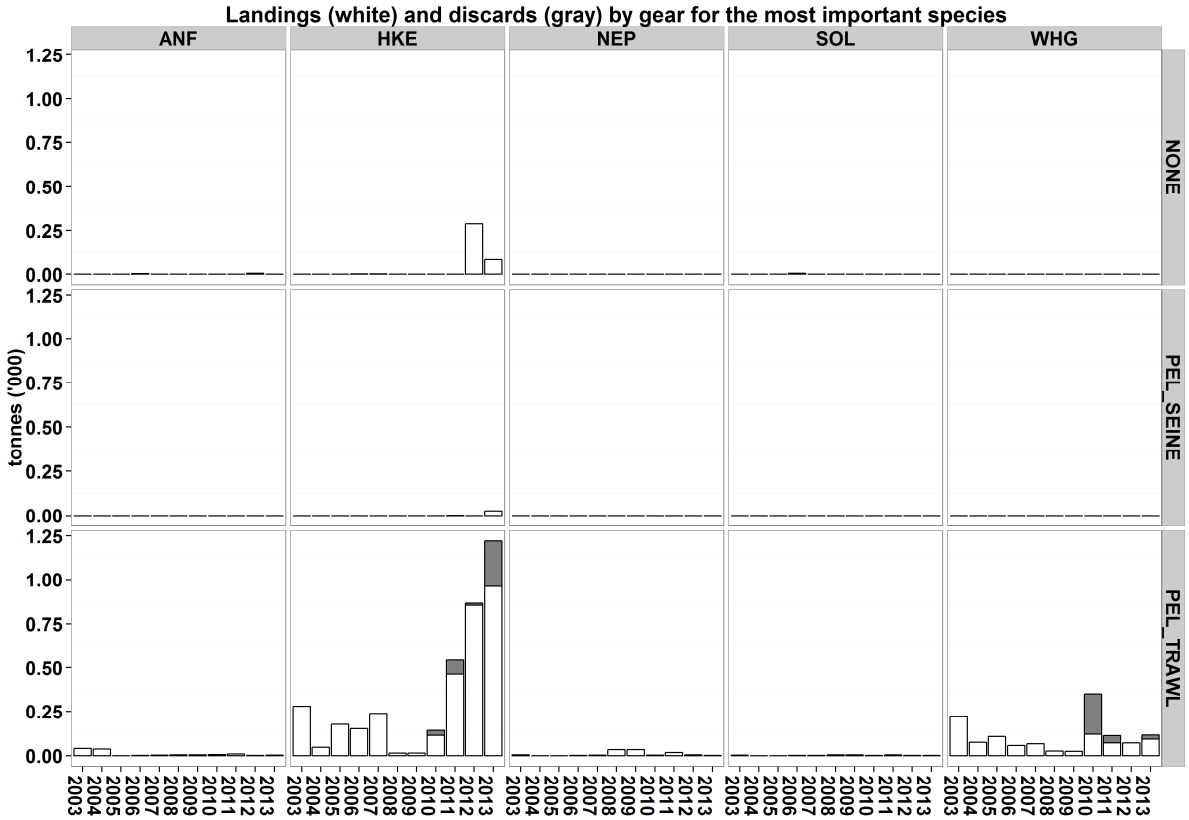


Fig. 5.10.4.1 (continue) – Bay of Biscay – 8a - Trend in total landings and discards estimates (t) for common sole and major associated species for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006, 2003-2013. Derogations are sorted by gear (o. 10m length vessels). Note that information collected on discards is incomplete, so the apparent absence of discards in the figures for a given species/gear does not necessarily mean zero discards. Data qualities are summarised in Section 4 of the report.

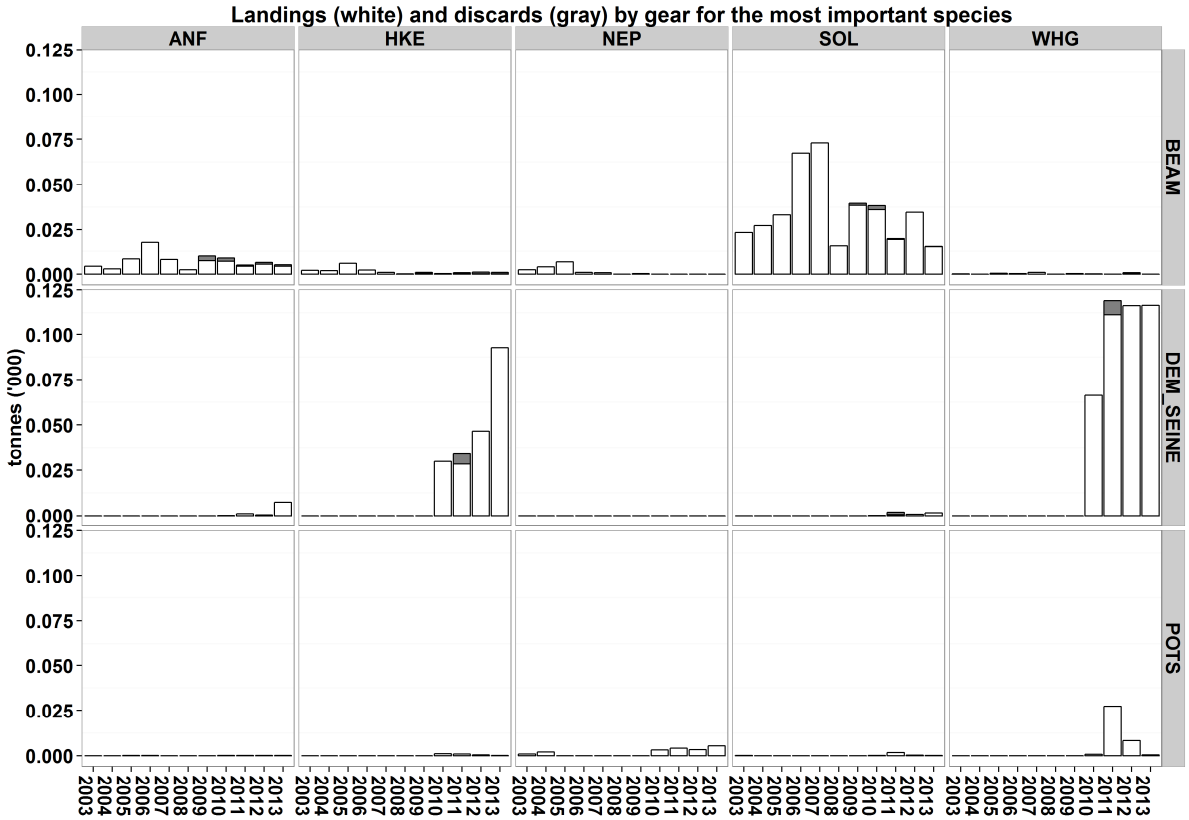


Fig. 5.10.4.2 – Bay of Biscay – 8b - Trend in total landings and discards estimates (t) for common sole and major associated species for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006, 2003-2013. Derogations are sorted by gear (o. 10m length vessels). Note that information collected on discards is incomplete, so the apparent absence of discards in the figures for a given species/gear does not necessarily mean zero discards. Data qualities are summarised in Section 4 of the report.

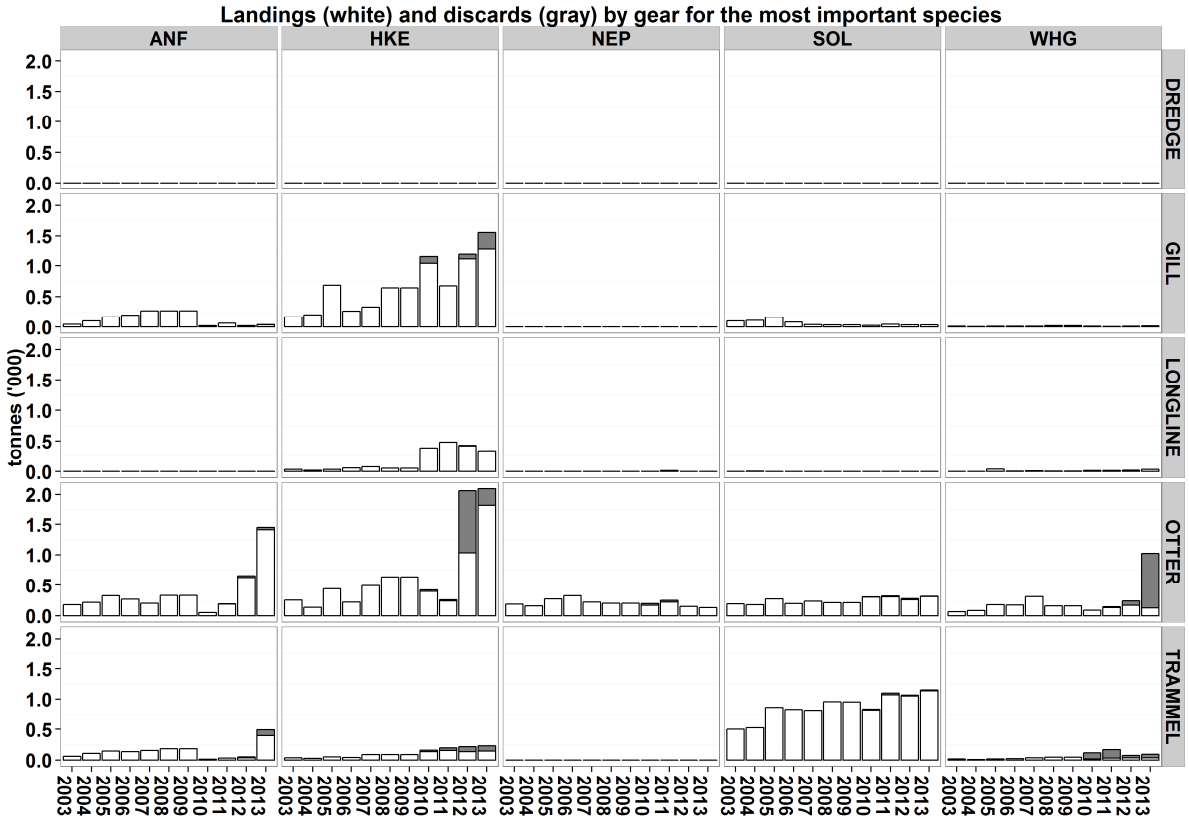


Fig. 5.10.4.2 (continue) – Bay of Biscay – 8b - Trend in total landings and discards estimates (t) for common sole and major associated species for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006, 2003-2013. Derogations are sorted by gear (o. 10m length vessels). Note that information collected on discards is incomplete, so the apparent absence of discards in the figures for a given species/gear does not necessarily mean zero discards. Data qualities are summarised in Section 4 of the report.

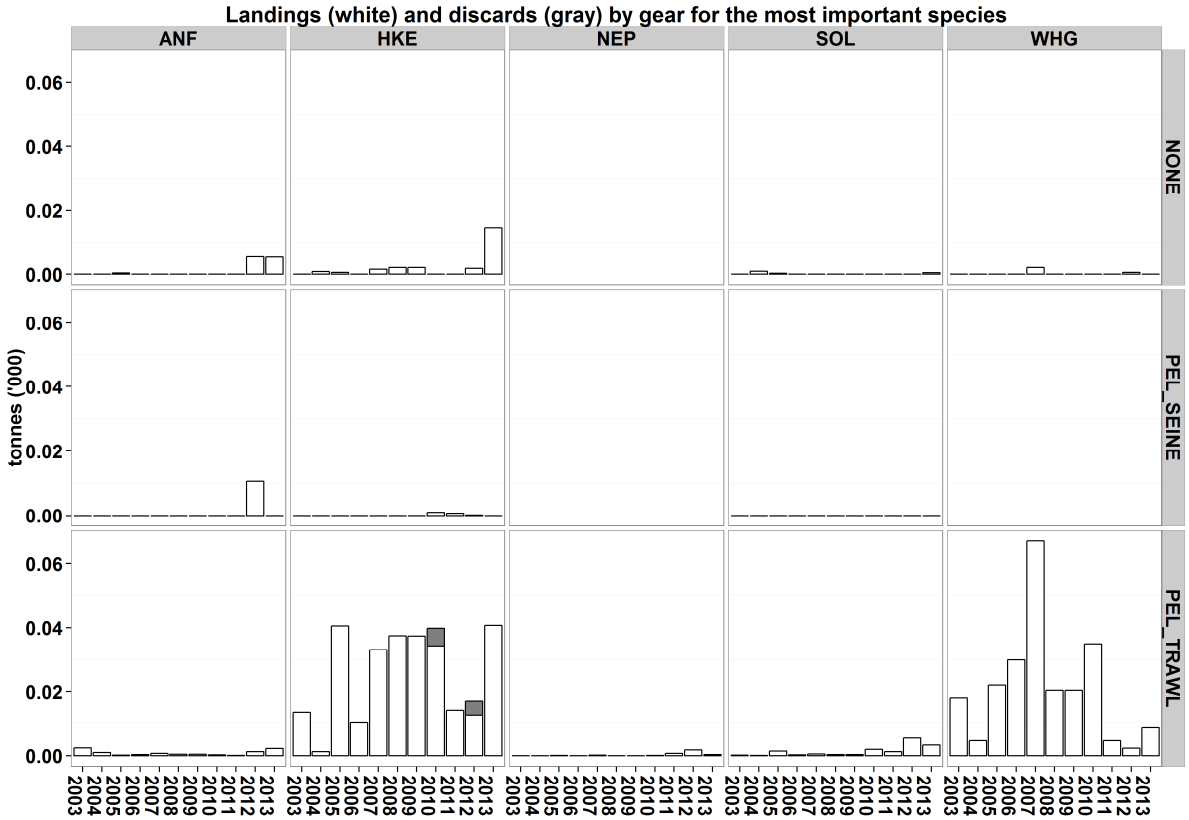


Fig. 5.10.4.2 (continue) – Bay of Biscay – 8b - Trend in total landings and discards estimates (t) for common sole and major associated species for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006, 2003-2013. Derogations are sorted by gear (o. 10m length vessels). Note that information collected on discards is incomplete, so the apparent absence of discards in the figures for a given species/gear does not necessarily mean zero discards. Data qualities are summarised in Section 4 of the report.

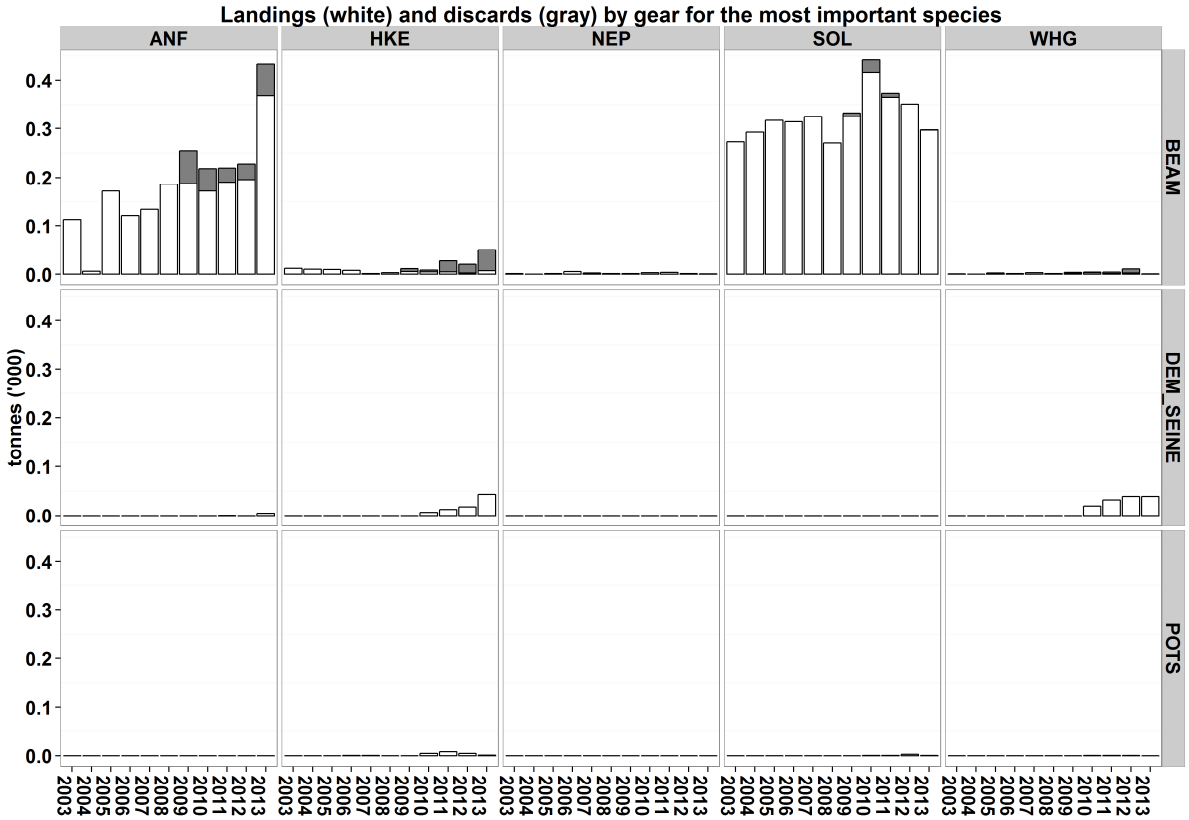


Fig. 5.10.4.3 – Bay of Biscay – 8a - Trend in total landings (t) for common sole and major associated species for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006, 2003-2013. Derogations are sorted by gear (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

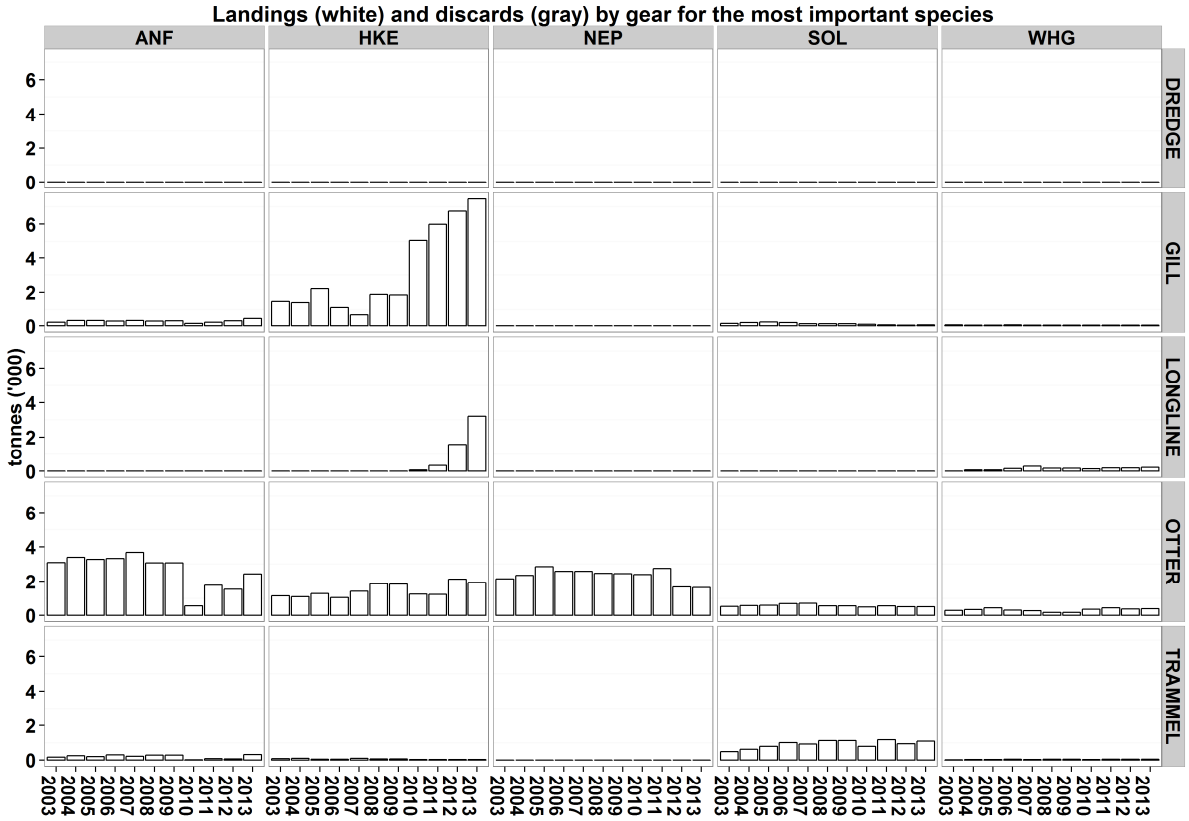


Fig. 5.10.4.3 (continue) – Bay of Biscay – 8a - Trend in total landings (t) for common sole and major associated species for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006, 2003-2013. Derogations are sorted by gear (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

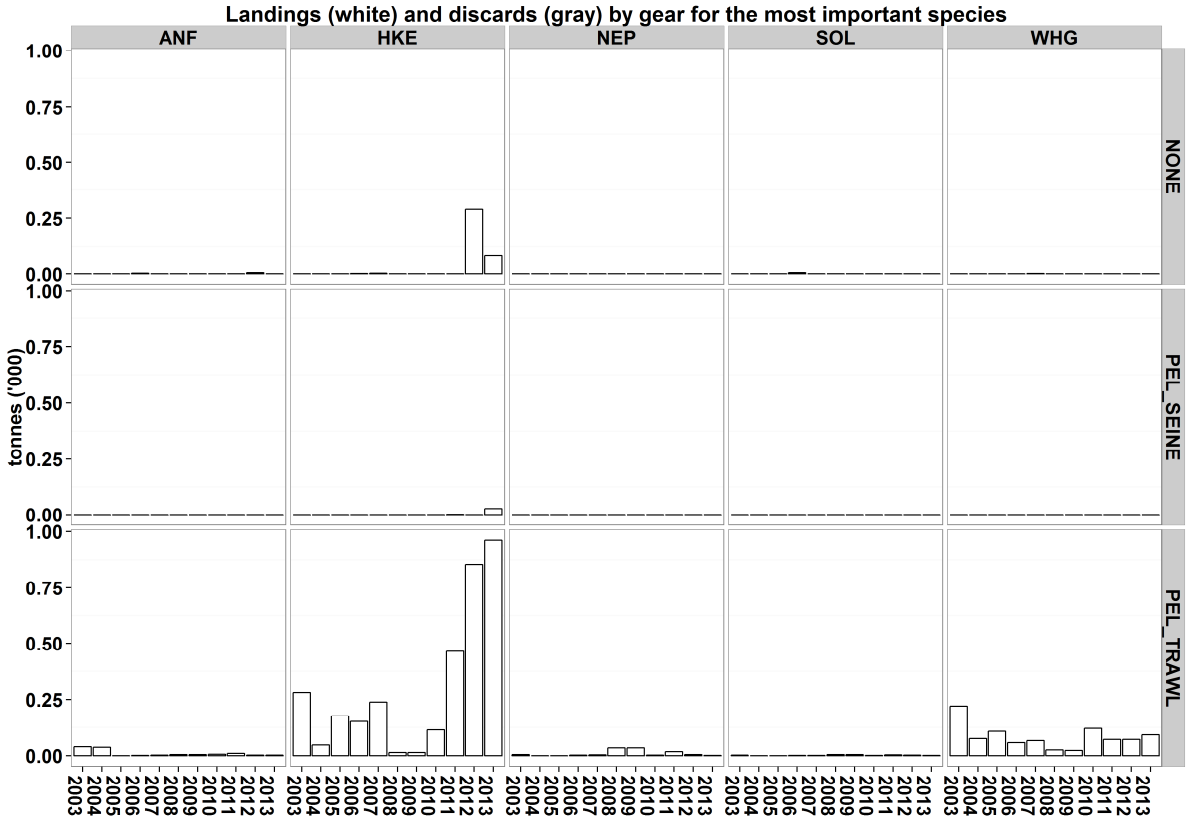


Fig. 5.10.4.3 (continue) – Bay of Biscay – 8a - Trend in total landings (t) for common sole and major associated species for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006, 2003-2013. Derogations are sorted by gear (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

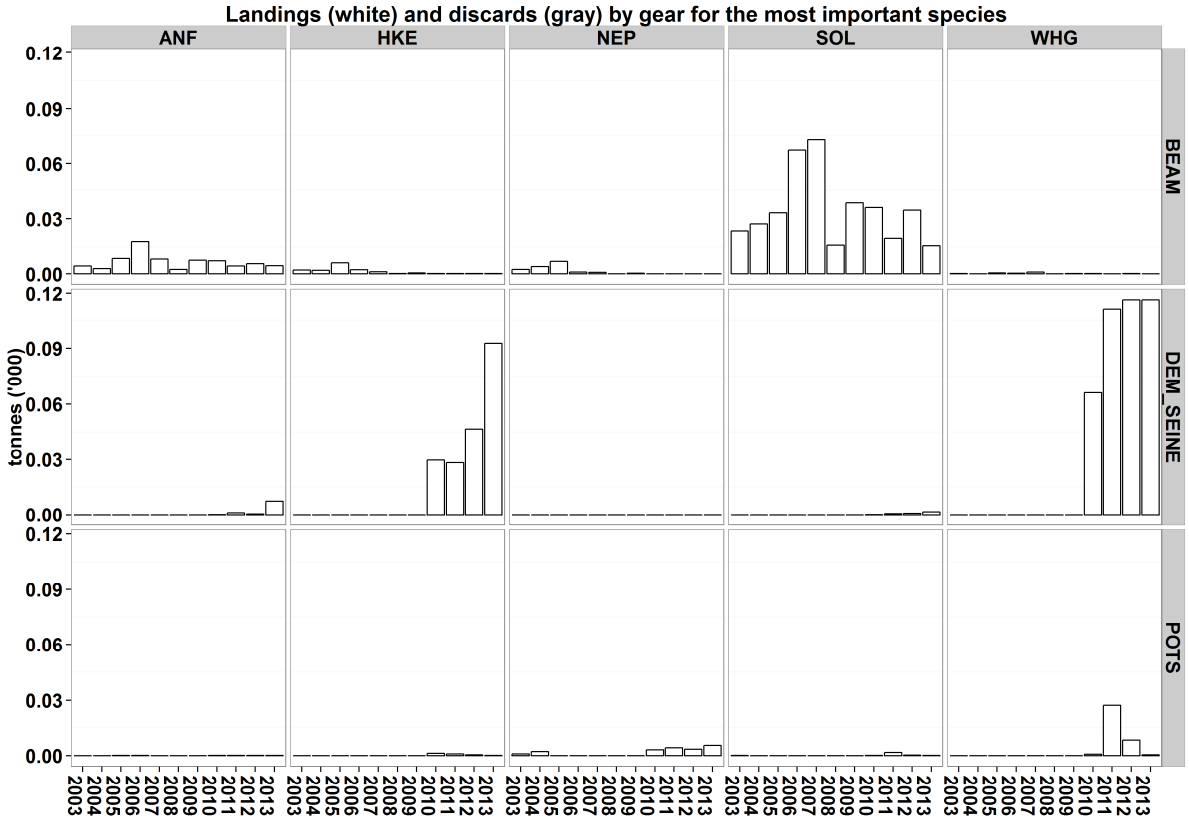


Fig. 5.10.4.4 – Bay of Biscay – 8b - Trend in total landings (t) for common sole and major associated species for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006, 2003-2013. Derogations are sorted by gear (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

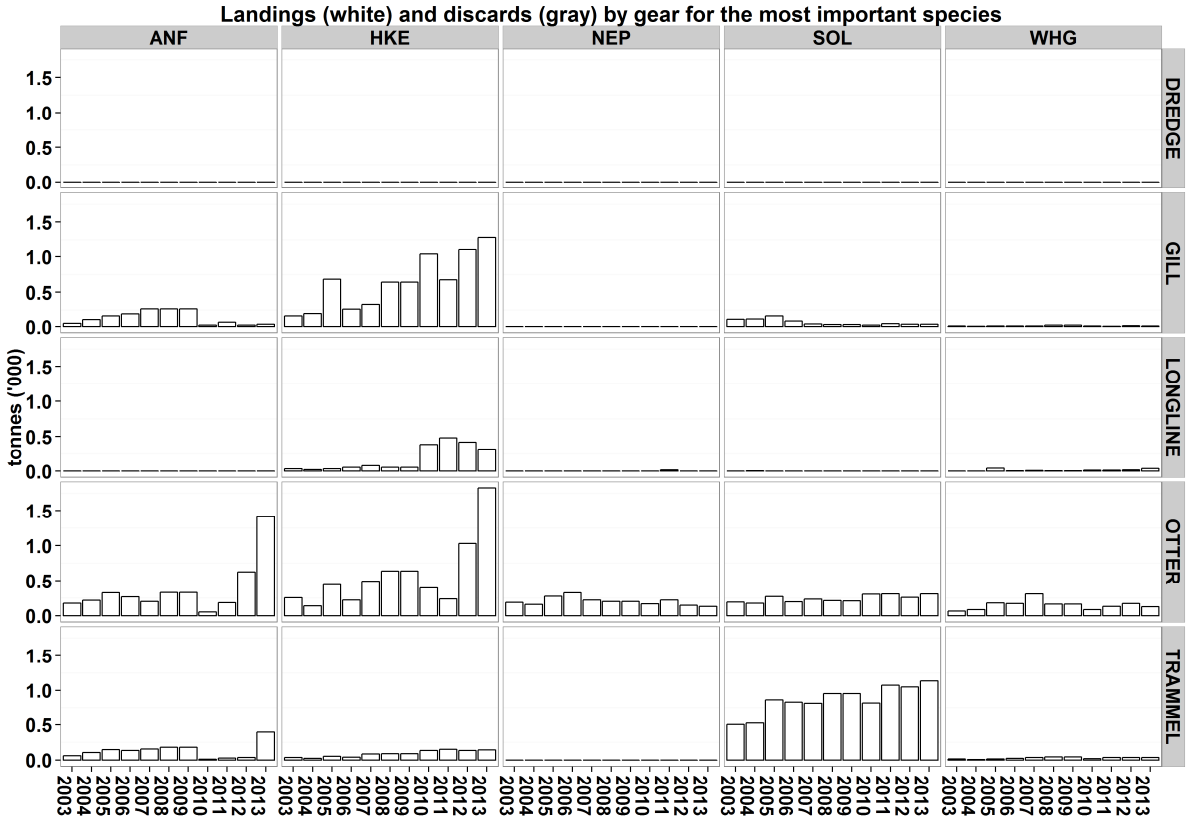


Fig. 5.10.4.4 (continue) – Bay of Biscay – 8b - Trend in total landings (t) for common sole and major associated species for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006, 2003-2013. Derogations are sorted by gear (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

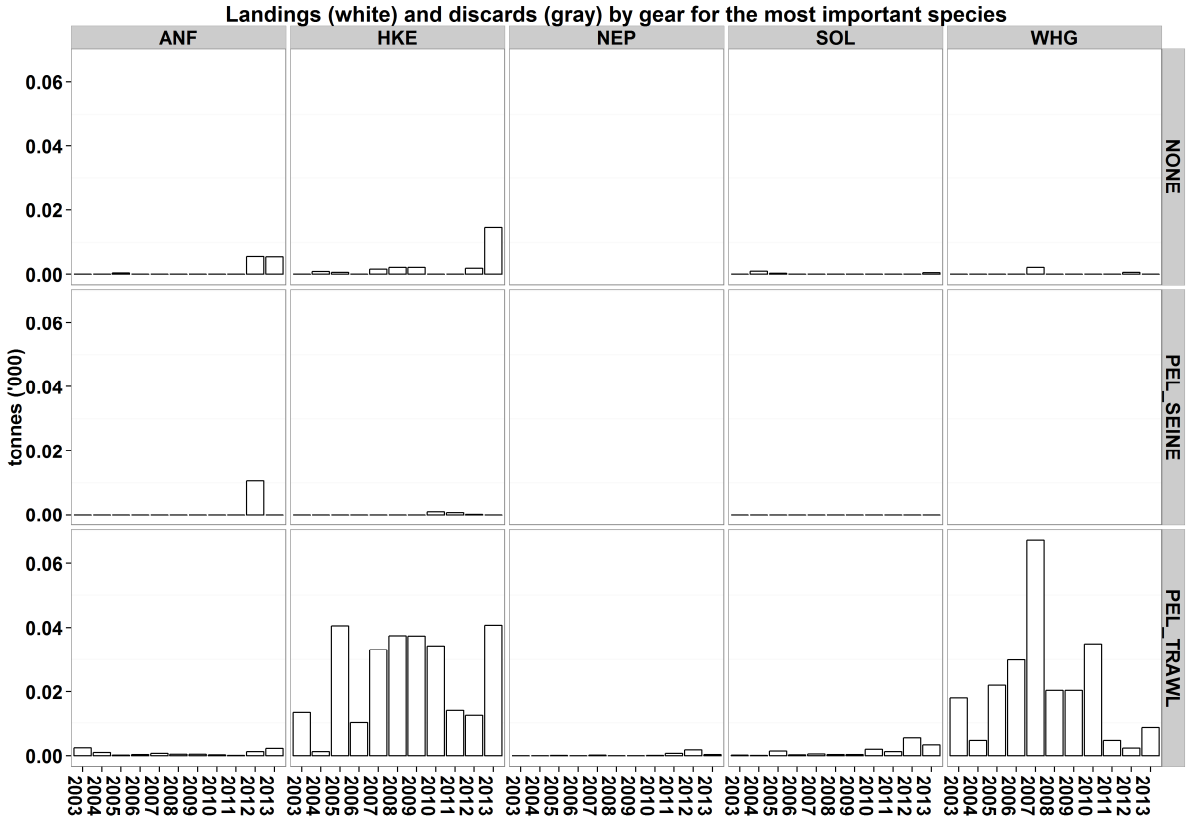
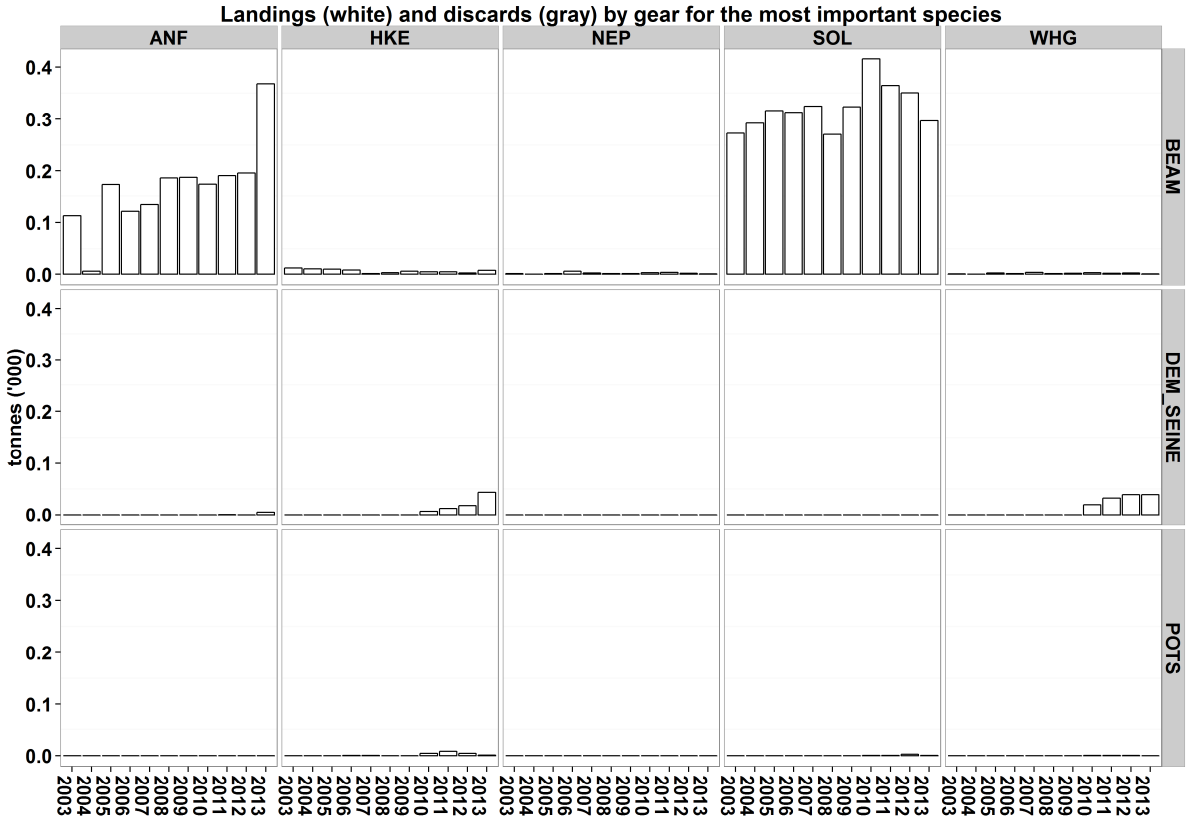


Fig. 5.10.4.4 (continue) – Bay of Biscay – 8b - Trend in total landings (t) for common sole and major associated species for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006, 2003-2013. Derogations are sorted by gear (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.



Tables 5.10.4.5 Bay of Biscay – 8a- Trend in total landings (t) and discards (t) for Anglerfish (ANF) for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2004-2013. Derogations are sorted by gear, special conditions (SPECON) and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

SPECIES	REG_AREA	REG_GEAR	SPECON	COUNTRY	2004		2005		2006		2007		2008		2009		2010		2011		2012		2013	
					L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D
ANF	8a-BoB	BEAM	none	BEL	0		7																	
				ENG									1											
				FRA	2		2		0															
		BEAM	**none**	**Total**	3	-	8	-	0	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
		BEAM	SBcIIIart5	BEL					18		8		1		7	3	7	2	4	1	5	1	4	1
		BEAM	**SBcIIIart5**	**Total**	-	-	-	-	18	-	8	-	1	-	7	3	7	2	4	1	5	1	4	1
		DEM_SEINE	none	FRA													0		1		0		1	
		DEM_SEINE	**none**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	0	-	1	-	0	-	1	-
		DEM_SEINE	SBcIIIart5	FRA																	0		6	
		DEM_SEINE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	6	-
		DREDGE	none	FRA	1		1		0		0		1		1				0				0	
		DREDGE	**none**	**Total**	1	-	1	-	0	-	0	-	1	-	1	-	-	-	0	-	-	-	0	-
		DREDGE	SBcIIIart5	FRA																			0	
		DREDGE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-
		GILL	none	ENG					31		11		0		32		81	0	99		142		148	8
				ESP																	5		3	0
				FRA	304		314		222		227		194		193		51	0	94		46		137	11
				SCO					27		67		82		67		2	0			0		13	2
		GILL	**none**	**Total**	304	-	314	-	281	-	305	-	276	-	293	-	134	0	193	-	193	-	300	22
		GILL	SBcIIIart5	FRA													1	-	5		93		126	0
		GILL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	1	-	5	-	93	-	126	0
		LONGLINE	none	ESP																	1			
				FRA	1		0		2		0		0		0		0		0		1		0	
		LONGLINE	**none**	**Total**	1	-	0	-	2	-	0	-	0	-	0	-	0	-	0	-	2	-	0	-
		LONGLINE	SBcIIIart5	FRA													0		0				0	
		LONGLINE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	-	-	-	0	-
		OTTER	none	ENG															2	0				
				ESP																	93	15	221	17
				FRA	3 386		3 265		3 316		3 673		3 074		3 061		435	69	1 374	155	1 055	207	1 238	89
		OTTER	**none**	**Total**	3 386	-	3 265	-	3 316	-	3 673	-	3 074	-	3 061	-	435	69	1 376	155	1 147	222	1 459	106
		OTTER	SBcIIIart5	FRA													128	29	390	42	391	79	974	62
		OTTER	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	128	29	390	42	391	79	974	62
		PEL_SEINE	none	FRA																			0	
		PEL_SEINE	**none**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-
		PEL_SEINE	SBcIIIart5	FRA																			0	
		PEL_SEINE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-
		PEL_TRAWL	none	ESP																	1			
				FRA	37		0		1		2		4		4		6		10		0		0	
		PEL_TRAWL	**none**	**Total**	37	-	0	-	1	-	2	-	4	-	4	-	6	-	10	-	2	-	0	-
		PEL_TRAWL	SBcIIIart5	FRA															0		0		2	
		PEL_TRAWL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	-	2	-
		POTS	none	FRA			0		0		0						0		0		0		0	
		POTS	**none**	**Total**	-	-	0	-	0	-	0	-	-	-	-	-	0	-	0	-	0	-	0	-
		POTS	SBcIIIart5	FRA																	0		0	
		POTS	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	-
		TRAMMEL	none	FRA	245		207		302		222		293		293		5		59	2	22	1	163	1
		TRAMMEL	**none**	**Total**	245	-	207	-	302	-	222	-	293	-	293	-	5	-	59	2	22	1	163	1
		TRAMMEL	SBcIIIart5	FRA													4	0	31	1	48	3	157	1
		TRAMMEL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	4	0	31	1	48	3	157	1
		none	none	ESP																	5			
				FRA					3		0		0		0									
		none	**none**	**Total**	-	-	-	-	3	-	0	-	0	-	0	-	-	-	-	-	5	-	-	-
	8a-BoB	**Total (all)**			3 977	-	3 796	-	3 921	-	4 211	-	3 651	-	3 660	3	721	100	2 069	201	1 909	306	3 192	192

Tables 5.10.4.6 Bay of Biscay – 8b- Trend in total landings (t) and discards (t) for Anglerfish (ANF) for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2004-2013. Derogations are sorted by gear, special conditions (SPECON) and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

SPECIES	REG_AREA	REG_GEAR	SPECON	COUNTRY	2004		2005		2006		2007		2008		2009		2010		2011		2012		2013	
					L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D
ANF	8b-BoB	BEAM	none	BEL	6		172																	
		BEAM	**none**	**Total**	6	-	172	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		BEAM	SBcIIIart5	BEL					121		134		186		188	67	172	46	191	29	196	32	368	65
		BEAM	**SBcIIIart5**	**Total**	-	-	-	-	121	-	134	-	186	-	188	67	172	46	191	29	196	32	368	65
		DEM_SEINE	none	ESP																	0			
				FRA															1				1	
		DEM_SEINE	**none**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	0	-	1	-
		DEM_SEINE	SBcIIIart5	FRA																			4	
		DEM_SEINE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-
		DREDGE	none	FRA			0		0															
		DREDGE	**none**	**Total**	-	-	0	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		DREDGE	SBcIIIart5	FRA															0					
		DREDGE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-
		GILL	none	ENG					16		7													
				ESP																	3		12	4
				FRA	100		167		180		260		265		265		20		60		13		10	2
				SCO													0							
		GILL	**none**	**Total**	100	-	167	-	196	-	267	-	265	-	265	-	20	-	60	-	16	-	22	6
		GILL	SBcIIIart5	FRA													1		1		7	-	12	1
		GILL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	7	-	12	1
		LONGLINE	none	ESP																	0			
				FRA	0		0		0		0		0		0		0		1				0	
		LONGLINE	**none**	**Total**	0	-	0	-	0	-	0	-	0	-	0	-	0	-	1	-	0	-	0	-
		LONGLINE	SBcIIIart5	FRA																			0	
		LONGLINE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-
		OTTER	none	ENG															5	-	4	0		
				ESP																	363	19	733	25
				FRA	219		327		270		204		332		332		18	-	100	2	85	3	248	8
				IRL															0	-				
		OTTER	**none**	**Total**	219	-	327	-	270	-	204	-	332	-	332	-	18	-	106	2	452	23	981	33
		OTTER	SBcIIIart5	FRA													36	-	82	2	172	6	430	9
		OTTER	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	36	-	82	2	172	6	430	9
		PEL_SEINE	none	ESP																	10			
				FRA																	0			
		PEL_SEINE	**none**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	-	-	-
		PEL_TRAWL	none	ESP																	1			
				FRA	1		0		0		1		0		0		0		0		0		0	
		PEL_TRAWL	**none**	**Total**	1	-	0	-	0	-	1	-	0	-	0	-	0	-	0	-	1	-	0	-
		PEL_TRAWL	SBcIIIart5	FRA																	1		2	
		PEL_TRAWL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	2	-
		POTS	none	FRA					0		0													
		POTS	**none**	**Total**	-	-	-	-	0	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-
		POTS	SBcIIIart5	FRA																			0	
		POTS	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-
		TRAMMEL	none	ESP																	1		1	0
				FRA	107		148		135		158		183		183		4	0	3	0	2		186	59
		TRAMMEL	**none**	**Total**	107	-	148	-	135	-	158	-	183	-	183	-	4	0	3	0	3	-	188	59
		TRAMMEL	SBcIIIart5	FRA													8	0	28	1	32	18	208	39
		TRAMMEL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	8	0	28	1	32	18	208	39
		none	none	ESP																	5		5	
				FRA	0		0																	
		none	**none**	**Total**	0	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	5	-
	8b-BoB	**Total (all)**			433	-	815	-	723	-	763	-	967	-	968	67	260	46	471	35	895	79	2 221	211

Tables 5.10.4.7 Bay of Biscay – 8a- Trend in total landings (t) and discards (t) for European Hake (HKE) for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2004-2013. Derogations are sorted by gear, special conditions (SPECON) and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

SPECIES	REG_AREA	REG_GEAR	SPECON	COUNTRY	2004		2005		2006		2007		2008		2009		2010		2011		2012		2013	
					L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D
HKE	8a-BoB	BEAM	none	BEL	0		0																	
				ENG									0											
				FRA	1		6		0															
		BEAM	**none**	**Total**	2	-	6	-	0	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-
		BEAM	SBcIIIart5	BEL					2		1		0		0	0	0	0	0	1	0	1	0	1
				FRA													0	-						
		BEAM	**SBcIIIart5**	**Total**	-	-	-	-	2	-	1	-	0	-	0	0	0	0	0	1	0	1	0	1
		DEM_SEINE	none	FRA													30		28	6	10		13	
				NED											-	-								
		DEM_SEINE	**none**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	30	-	28	6	10	-	13	-
		DEM_SEINE	SBcIIIart5	FRA															0		36		80	
		DEM_SEINE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	36	-	80	-
		DREDGE	none	FRA	0		2		3		1		1		1		1		0		0		0	
		DREDGE	**none**	**Total**	0	-	2	-	3	-	1	-	1	-	1	-	1	-	0	-	0	-	0	-
		DREDGE	SBcIIIart5	FRA																	0			
		DREDGE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-
		GILL	none	ENG	29		33		11		0		0		0		0	0	0	0	0	-	0	0
				ESP																	730	-	1 229	60
				FRA	1 356		2 105		1 098		698		1 851		1 843		4 378	532	5 359	26	4 583	-	4 688	246
				SCO	19		69		6		0		20		0		43	3	73	-	102	-	66	-
		GILL	**none**	**Total**	1 404	-	2 207	-	1 115	-	698	-	1 871	-	1 843	-	4 421	535	5 433	26	5 415	-	5 982	306
		GILL	SBcIIIart5	FRA													639	29	550	6	1 329	-	1 468	68
		GILL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	639	29	550	6	1 329	-	1 468	68
		LONGLINE	none	ENG							0													
				ESP																	908	-	2 465	158
				FRA	2		0		0		1		2		2		53		302	-	665	-	719	30
				SCO					1		0		0				10		39	-			12	-
		LONGLINE	**none**	**Total**	2	-	0	-	1	-	1	-	2	-	2	-	62	-	340	-	1 572	-	3 196	189
		LONGLINE	SBcIIIart5	FRA													1		0	-	1	-	4	0
		LONGLINE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	1	-	0	-	1	-	4	0
		OTTER	none	ENG															2	12				
				ESP																	836	1 168	616	402
				FRA	1 095		1 274		1 048		1 413		1 850		1 838		575	765	705	747	637	890	601	475
		OTTER	**none**	**Total**	1 095	-	1 274	-	1 048	-	1 413	-	1 850	-	1 838	-	575	765	708	759	1 473	2 057	1 218	876
		OTTER	SBcIIIart5	FRA													666	671	519	553	655	918	722	936
		OTTER	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	666	671	519	553	655	918	722	936
		PEL_SEINE	none	FRA	0		0		0										1				27	
		PEL_SEINE	**none**	**Total**	0	-	0	-	0	-	-	-	-	-	-	-	-	-	1	-	-	-	27	-
		PEL_SEINE	SBcIIIart5	FRA																	0		0	
		PEL_SEINE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	-
		PEL_TRAWL	none	ENG											0		27	-	3	-			2	-
				FRA	47		176		151		238		14		13		80	24	385	57	742	8	732	192
				NLD													2	-	17	0	2	-		
		PEL_TRAWL	**none**	**Total**	47	-	176	-	151	-	238	-	14	-	14	-	110	24	405	57	744	8	735	192
		PEL_TRAWL	SBcIIIart5	FRA													4	4	58	22	109	3	226	68
		PEL_TRAWL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	4	4	58	22	109	3	226	68
		POTS	none	FRA													1		1		0		0	
		POTS	**none**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	0	-	0	-
		POTS	SBcIIIart5	FRA													0		0		0		0	
		POTS	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	-	0	-	0	-
		TRAMMEL	none	ENG									0											
				FRA	98		52		42		107		67		67		4	0	1	0	2	7	5	
		TRAMMEL	**none**	**Total**	98	-	52	-	42	-	107	-	67	-	67	-	4	0	1	0	2	7	5	-
		TRAMMEL	SBcIIIart5	FRA													36	7	25	1	26	23	31	
		TRAMMEL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	36	7	25	1	26	23	31	-
		none	none	ESP																	288		81	
				FRA					1		2		0		0									
		none	**none**	**Total**	-	-	-	-	1	-	2	-	0	-	0	-	-	-	-	-	288	-	81	-
	8a-BoB	**Total (all)**			2 647	-	3 718	-	2 363	-	2 462	-	3 805	-	3 765	0	6 549	2 034	8 071	1 431	11 663	3 019	13 787	2 635

Tables 5.10.4.8 Bay of Biscay – 8b- Trend in total landings (t) and discards (t) for European Hake (HKE) for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2004-2013. Derogations are sorted by gear, special conditions (SPECON) and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

SPECIES	REG_AREA	REG_GEAR	SPECON	COUNTRY	2004		2005		2006		2007		2008		2009		2010		2011		2012		2013	
					L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D
HKE	8b-BoB	BEAM	none	BEL	10		9																	
		BEAM	**none**	**Total**	10	-	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		BEAM	SBcIIIart5	BEL					8		1		3		6	6	5	4	5	23	3	17	7	43
		BEAM	**SBcIIIart5**	**Total**	-	-	-	-	8	-	1	-	3	-	6	6	5	4	5	23	3	17	7	43
		DEM_SEINE	none	ESP																	0			
				FRA													7		12		9		9	
		DEM_SEINE	**none**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	7	-	12	-	9	-	9	-
		DEM_SEINE	SBcIIIart5	FRA																	8		34	
		DEM_SEINE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	34	-
		DREDGE	none	FRA			0		0		0		0		0		0		0		0		0	
		DREDGE	**none**	**Total**	-	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
		DREDGE	SBcIIIart5	FRA													0		0		0			
		DREDGE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	-	0	-	-	-
		GILL	none	ENG			4		0															
				ESP																	285	29	255	47
				FRA	201		679		262		328		642		642		889	100	551	-	697	37	666	133
				SCO	0												10	1						
		GILL	**none**	**Total**	201	-	683	-	262	-	328	-	642	-	642	-	898	101	551	-	982	66	921	180
		GILL	SBcIIIart5	FRA													141	9	122	-	129	10	362	91
		GILL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	141	9	122	-	129	10	362	91
		LONGLINE	none	ESP																	72	3	44	0
				FRA	20		34		56		77		52		52		364		473		284	4	191	0
		LONGLINE	**none**	**Total**	20	-	34	-	56	-	77	-	52	-	52	-	364	-	473	-	356	7	236	0
		LONGLINE	SBcIIIart5	FRA													21		7		62	0	85	-
		LONGLINE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	21	-	7	-	62	0	85	-
		OTTER	none	ENG																	1	4		
				ESP																	788	892	1 357	198
				FRA	139		442		222		493		636		634		67	2	54	3	34	25	111	11
		OTTER	**none**	**Total**	139	-	442	-	222	-	493	-	636	-	634	-	67	2	54	3	824	921	1 468	209
		OTTER	SBcIIIart5	FRA													329	25	185	17	207	111	357	59
		OTTER	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	329	25	185	17	207	111	357	59
		PEL_SEINE	none	ESP																	0			
				FRA	0						0		0		0		1		1					
		PEL_SEINE	**none**	**Total**	0	-	-	-	-	-	0	-	0	-	0	-	1	-	1	-	0	-	-	-
		PEL_TRAWL	none	ENG																			5	
				ESP																			0	
				FRA	1		41		10		33		37		37		30	5	13		9	4	22	
				NED																			1	
		PEL_TRAWL	**none**	**Total**	1	-	41	-	10	-	33	-	37	-	37	-	30	5	13	-	9	4	28	-
		PEL_TRAWL	SBcIIIart5	FRA													5		2		4		12	
		PEL_TRAWL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	5	-	2	-	4	-	12	-
		POTS	none	FRA					0		0						4		6		4		1	
		POTS	**none**	**Total**	-	-	-	-	0	-	0	-	-	-	-	-	4	-	6	-	4	-	1	-
		POTS	SBcIIIart5	FRA													1		2		1		0	
		POTS	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	1	-	2	-	1	-	0	-
		TRAMMEL	none	ESP																	0	0	0	0
				FRA	26		53		43		88		91		90		5	1	14	2	4	4	5	3
		TRAMMEL	**none**	**Total**	26	-	53	-	43	-	88	-	91	-	90	-	5	1	14	2	5	4	5	3
		TRAMMEL	SBcIIIart5	FRA													132	22	140	40	132	76	140	83
		TRAMMEL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	132	22	140	40	132	76	140	83
		none	none	ESP																	2		15	
				FRA	1		1				2		2		2									
		none	**none**	**Total**	1	-	1	-	-	-	2	-	2	-	2	-	-	-	-	-	2	-	15	-
	8b-BoB	**Total (all)**			399	-	1 263	-	600	-	1 023	-	1 464	-	1 464	6	2 009	169	1 588	85	2 737	1 217	3 681	668

Tables 5.10.4.9 Bay of Biscay – 8a- Trend in total landings (t) and discards (t) for Norway Lobster (NEP) for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2004-2013. Derogations are sorted by gear, special conditions (SPECON) and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

SPECIES	REG_AREA	REG_GEAR	SPECON	COUNTRY	2004		2005		2006		2007		2008		2009		2010		2011		2012		2013	
					L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D
NEP	8a-BoB	BEAM	none	BEL			0																	
				FRA	4		7																	
		BEAM	**none**	**Total**	4	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		BEAM	SBcIIIart5	BEL					1		1				0				0					
		BEAM	**SBcIIIart5**	**Total**	-	-	-	-	1	-	1	-	-	-	0	-	-	-	0	-	-	-	-	-
		DEM_SEINE	none	FRA																			0	
		DEM_SEINE	**none**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-
		DEM_SEINE	SBcIIIart5	FRA																			0	
		DEM_SEINE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-
		DREDGE	none	FRA	0		2		0		0		1		1		2						0	
		DREDGE	**none**	**Total**	0	-	2	-	0	-	0	-	1	-	1	-	2	-	-	-	-	-	0	-
		GILL	none	FRA	2		0		1		1		3		3		0		0		0		0	
		GILL	**none**	**Total**	2	-	0	-	1	-	1	-	3	-	3	-	0	-	0	-	0	-	0	-
		GILL	SBcIIIart5	FRA													0		1		0		0	
		GILL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	0	-	1	-	0	-	0	-
		OTTER	none	ESP																			0	0
				FRA	2 346		2 846		2 579		2 578		2 455		2 446		1 220	452	1 420	897	663	470	598	371
				IRL																	2	1		
		OTTER	**none**	**Total**	2 346	-	2 846	-	2 579	-	2 578	-	2 455	-	2 446	-	1 220	452	1 420	897	666	471	598	372
		OTTER	SBcIIIart5	FRA													1 173	417	1 325	847	1 010	715	1 037	585
		OTTER	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	1 173	417	1 325	847	1 010	715	1 037	585
		PEL_SEINE	SBcIIIart5	FRA																			0	
		PEL_SEINE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-
		PEL_TRAWL	none	FRA			0		2		3		34		34		1		17		0		0	
		PEL_TRAWL	**none**	**Total**	-	-	0	-	2	-	3	-	34	-	34	-	1	-	17	-	0	-	0	-
		PEL_TRAWL	SBcIIIart5	FRA													1		1		5		1	
		PEL_TRAWL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	5	-	1	-
		POTS	none	FRA	2		0										3		4		3		1	
		POTS	**none**	**Total**	2	-	0	-	-	-	-	-	-	-	-	-	3	-	4	-	3	-	1	-
		POTS	SBcIIIart5	FRA													0						4	
		POTS	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	4	-
		TRAMMEL	none	FRA	1		1		5		0		0		0		2		1	-	1			
		TRAMMEL	**none**	**Total**	1	-	1	-	5	-	0	-	0	-	0	-	2	-	1	-	1	-	-	-
		TRAMMEL	SBcIIIart5	FRA													0		0	-	0		0	
		TRAMMEL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	-	0	-	0	-
		none	none	FRA					0		0		0		0									
		none	**none**	**Total**	-	-	-	-	0	-	0	-	0	-	0	-	-	-	-	-	-	-	-	-
	8a-BoB	**Total (all)**			2 355	-	2 856	-	2 588	-	2 584	-	2 494	-	2 485	-	2 402	870	2 769	1 744	1 685	1 185	1 642	956

Tables 5.10.4.10 Bay of Biscay – 8b- Trend in total landings (t) and discards (t) for Norway Lobster (NEP) for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2004-2013. Derogations are sorted by gear, special conditions (SPECON) and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

SPECIES	REG_AREA	REG_GEAR	SPECON	COUNTRY	2004		2005		2006		2007		2008		2009		2010		2011		2012		2013	
					L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D
NEP	8b-BoB	BEAM	none	BEL			1																	
		BEAM	**none**	**Total**	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		BEAM	SBclIIart5	BEL					5		2		1		1		3		3		1		0	
		BEAM	**SBclIIart5**	**Total**	-	-	-	-	5	-	2	-	1	-	1	-	3	-	3	-	1	-	0	-
		DEM_SEIN	none	FRA																			0	
		DEM_SEINE	**none**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-
		DREDGE	none	FRA			0		0		0										0		0	
		DREDGE	**none**	**Total**	-	-	0	-	0	-	0	-	-	-	-	-	-	-	-	-	0	-	0	-
		DREDGE	SBclIIart5	FRA													0							
		DREDGE	**SBclIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-
		GILL	none	FRA	0				0				0		0									
		GILL	**none**	**Total**	0	-	-	-	0	-	-	-	0	-	0	-	-	-	-	-	-	-	-	-
		GILL	SBclIIart5	FRA													0						0	
		GILL	**SBclIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	0	-
		OTTER	none	ENG															0	-				
				ESP																	0	-	1	0
				FRA	160		276		328		223		204		204		3		15	1	4	-	7	0
				IRL															4	-	4	-		
		OTTER	**none**	**Total**	160	-	276	-	328	-	223	-	204	-	204	-	3	-	19	1	8	-	8	0
		OTTER	SBclIIart5	FRA													169	25	202	27	141	-	125	2
		OTTER	**SBclIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	169	25	202	27	141	-	125	2
		PEL_TRAWL	none	FRA			0				0								0				0	
		PEL_TRAWL	**none**	**Total**	-	-	0	-	-	-	0	-	-	-	-	-	-	-	0	-	-	-	0	-
		PEL_TRAWL	SBclIIart5	FRA													0		1		2		0	
		PEL_TRAWL	**SBclIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	0	-	1	-	2	-	0	-
		POTS	none	FRA							0						0							
		POTS	**none**	**Total**	-	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	-
		TRAMMEL	none	FRA			0		0		0		0		0		0		0					
		TRAMMEL	**none**	**Total**	-	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	-	-	-	-
		TRAMMEL	SBclIIart5	FRA													1	-	0		0		0	
		TRAMMEL	**SBclIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	1	-	0	-	0	-	0	-
	8b-BoB	Total (all)			160	-	278	-	334	-	225	-	205	-	205	-	176	25	225	28	153	-	133	2

Tables 5.10.4.11 Bay of Biscay – 8a- Trend in total landings (t) and discards (t) for Whiting (WHG) for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2004-2013. Derogations are sorted by gear, special conditions (SPECON) and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

SPECIES	REG_AREA	REG_GEAR	SPECON	COUNTRY	2004		2005		2006		2007		2008		2009		2010		2011		2012		2013	
					L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D
WHG	8a-BoB	BEAM	none	BEL	0		0																	
				FRA	0		0																	
		BEAM	**none**	**Total**	0	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		BEAM	SBcIIIart5	BEL					0		1				0	0	0	0	0	0	0	1	0	
		BEAM	**SBcIIIart5**	**Total**	-	-	-	-	0	-	1	-	-	-	0	0	0	0	0	0	0	1	0	-
		DEM_SEINE	none	FRA													66		111	8	15		13	
		DEM_SEINE	**none**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	66	-	111	8	15	-	13	-
		DEM_SEINE	SBcIIIart5	FRA															0		101		103	
		DEM_SEINE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	101	-	103	-
		DREDGE	none	FRA	2		1		1		0		0		0		0		0		0		0	
		DREDGE	**none**	**Total**	2	-	1	-	1	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
		DREDGE	SBcIIIart5	FRA													0				0			
		DREDGE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	0	-	-	-
		GILL	none	ESP																	0		0	0
				FRA	33		43		54		42		34		34		16	0	13	0	15		13	7
		GILL	**none**	**Total**	33	-	43	-	54	-	42	-	34	-	34	-	16	0	13	0	16	-	13	7
		GILL	SBcIIIart5	FRA													20	1	17	0	28		28	4
		GILL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	20	1	17	0	28	-	28	4
		LONGLINE	none	FRA	63		69		148		294		167		167		140		181	2	176	0	182	1
		LONGLINE	**none**	**Total**	63	-	69	-	148	-	294	-	167	-	167	-	140	-	181	2	176	0	182	1
		LONGLINE	SBcIIIart5	FRA													2		0	-	10	0	42	0
		LONGLINE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	2	-	0	-	10	0	42	0
		OTTER	none	ESP																	14	11	14	5
				FRA	331		430		308		265		167		166		125	322	177	52	131	31	110	39
		OTTER	**none**	**Total**	331	-	430	-	308	-	265	-	167	-	166	-	125	322	177	52	145	42	124	43
		OTTER	SBcIIIart5	FRA													223	286	255	76	234	68	265	135
		OTTER	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	223	286	255	76	234	68	265	135
		PEL_SEINE	none	FRA					0										0				0	
		PEL_SEINE	**none**	**Total**	-	-	-	-	0	-	-	-	-	-	-	-	-	-	0	-	-	-	0	-
		PEL_SEINE	SBcIIIArt5	FRA																			0	
		PEL_SEINE	**SBcIIIArt5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-
		PEL_TRAWL	none	FRA	75		108		57		66		25		23		119	228	68	39	29	0	34	9
		PEL_TRAWL	**none**	**Total**	75	-	108	-	57	-	66	-	25	-	23	-	119	228	68	39	29	0	34	9
		PEL_TRAWL	SBcIIIart5	FRA													2	1	4	2	42	0	59	14
		PEL_TRAWL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	2	1	4	2	42	0	59	14
		POTS	none	FRA													1		27		8		0	
		POTS	**none**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	1	-	27	-	8	-	0	-
		POTS	SBcIIIart5	FRA													0		0		0		0	
		POTS	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	-	0	-	0	-
		TRAMMEL	none	FRA	24		25		51		36		41		41		6	7	3	2	4	2	3	
		TRAMMEL	**none**	**Total**	24	-	25	-	51	-	36	-	41	-	41	-	6	7	3	2	4	2	3	-
		TRAMMEL	SBcIIIart5	FRA													21	14	42	6	41	19	44	
		TRAMMEL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	21	14	42	6	41	19	44	-
		none	none	ESP																	0			
				FRA					0		1		0		0									
		none	**none**	**Total**	-	-	-	-	0	-	1	-	0	-	0	-	-	-	-	-	0	-	-	-
	8a-BoB	**Total (all)**			528	-	675	-	620	-	705	-	435	-	432	0	740	860	900	188	851	133	911	213

Tables 5.10.4.12 Bay of Biscay – 8b- Trend in total landings (t) and discards (t) for Whiting (WHG) for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2004-2013. Derogations are sorted by gear, special conditions (SPECON) and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

SPECIES	REG_AREA	REG_GEAR	SPECON	COUNTRY	2004		2005		2006		2007		2008		2009		2010		2011		2012		2013	
					L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D
WHG	8b-BoB	BEAM	none	BEL	0		2																	
		BEAM	**none**	**Total**	0	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		BEAM	SBcIIIart5	BEL					1		3		1		2	2	3	1	1	3	3	8	1	
		BEAM	**SBcIIIart5**	**Total**	-	-	-	-	1	-	3	-	1	-	2	2	3	1	1	3	3	8	1	-
		DEM_SEINE	none	FRA													14		32		23		15	
				NLD											-	-	5				-			
		DEM_SEINE	**none**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	19	-	32	-	23	-	15	-
		DEM_SEINE	SBcIIIart5	FRA																	16		24	
		DEM_SEINE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	-	24	-
		DREDGE	none	FRA			0		0		0		0		0		0				0			
		DREDGE	**none**	**Total**	-	-	0	-	0	-	0	-	0	-	0	-	0	-	-	-	0	-	-	-
		DREDGE	SBcIIIart5	FRA													0		0		0		0	
		DREDGE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	-	0	-	0	-
		GILL	none	FRA	6		11		10		10		20		20		9	1	2	-	4	-	0	0
		GILL	**none**	**Total**	6	-	11	-	10	-	10	-	20	-	20	-	9	1	2	-	4	-	0	0
		GILL	SBcIIIart5	FRA													2	0	1		7	0	9	4
		GILL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	2	0	1	-	7	0	9	4
		LONGLINE	none	FRA	1		41		4		8		3		3		13		14		7	-	17	
		LONGLINE	**none**	**Total**	1	-	41	-	4	-	8	-	3	-	3	-	13	-	14	-	7	-	17	-
		LONGLINE	SBcIIIart5	FRA													2		0		11	-	19	
		LONGLINE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	2	-	0	-	11	-	19	-
		OTTER	none	ESP																	72	55	40	262
				FRA	87		180		175		312		163		163		24		33	1	12	2	9	24
		OTTER	**none**	**Total**	87	-	180	-	175	-	312	-	163	-	163	-	24	-	33	1	84	56	50	286
		OTTER	SBcIIIart5	FRA													64	4	101	12	88	11	78	610
		OTTER	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	64	4	101	12	88	11	78	610
		PEL_TRAWL	none	ESP																			0	
				FRA	5		22		30		67		20		20		35	-	3		0		1	
		PEL_TRAWL	**none**	**Total**	5	-	22	-	30	-	67	-	20	-	20	-	35	-	3	-	0	-	1	-
		PEL_TRAWL	SBcIIIart5	FRA													0		2		2		8	
		PEL_TRAWL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	0	-	2	-	2	-	8	-
		POTS	none	FRA							0						0		0					
		POTS	**none**	**Total**	-	-	-	-	-	-	0	-	-	-	-	-	0	-	0	-	-	-	-	-
		POTS	SBcIIIart5	FRA													0		0		0		0	
		POTS	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	-	0	-	0	-
		TRAMMEL	none	FRA	7		17		23		36		46		46		0	0	1	4	0	0	0	0
		TRAMMEL	**none**	**Total**	7	-	17	-	23	-	36	-	46	-	46	-	0	0	1	4	0	0	0	0
		TRAMMEL	SBcIIIart5	FRA													20	96	34	133	37	40	37	56
		TRAMMEL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	20	96	34	133	37	40	37	56
		none	none	ESP																	1			
				FRA	0						2		0		0									
		none	**none**	**Total**	0	-	-	-	-	-	2	-	0	-	0	-	-	-	-	-	1	-	-	-
	8b-BoB	**Total (all)**			106	-	272	-	243	-	438	-	255	-	255	2	190	103	225	152	283	116	257	957

5.10.5 ToR 2 Information on small boats (<10m)

5.10.5.1 Fishing effort of small boats by Member State

An overview of the fishing effort of small boats by Member State, Gear and SPECON for the ICES division 8a and 8b is presented below. Comparison with the large vessels (>10m) is, as well, presented.

Almost all effort of small boats is French. No Spanish, Belgium nor Netherlands data are available for small boats. English data for small boats are very scarce.

Small boats represent, the last four years, almost 20% of the effort deployed by the large vessels in 8a and 10% in 8b. Relative stability is observed for the last four years. Main fleets involved in 8a are the longline fleet, the pots fleet, the gill and trammel net fleets and the otter trawl fleet. In 8b, the main fleets are the gill and trammel net fleets, the longline fleet and the pots fleet.

The effort data available for small boats before 2010 seem to be incomplete and the "none" gear category represent a large part of this effort. **So care is required in the use of these data to draw firm conclusions about trends of effort of small boats before 2010.**

Table 5.10.5.1.1 – Bay of Biscay – 8a – Overview of fishing effort in kW*days by fisheries for vessels <10m, comparison with the vessels >=10m, 2004- 2013. Relative changes between 2012 and 2013 are presented.

Length Class	REG AREA COD	REG GEAR COD	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Rel.C 13-12
o. 10m.	Sum o. 10m.		17 154 080	23 218 619	29 332 985	30 195 231	24 661 463	24 267 804	20 165 332	20 024 416	20 918 335	18 805 012	-10%
u. 10m.	8a-BoB	BEAM				2 552			2 376	352	1 320	4 656	253%
	8a-BoB	DREDGE	112 020	151 406	211 597	119 511	87 829	87 829	93 547	84 866	178 770	185 551	4%
	8a-BoB	GILL	477 770	521 942	667 053	673 044	420 628	420 628	1 003 414	847 894	759 362	757 515	0%
	8a-BoB	LONGLINE	215 468	322 477	763 802	879 977	439 161	439 161	1 202 923	1 156 425	1 072 205	981 638	-8%
	8a-BoB	OTTER	271 622	286 328	471 349	496 698	274 566	274 566	537 787	534 402	491 967	471 176	-4%
	8a-BoB	PEL_SEINE			990	4 070			1 059	2 507	135	108	-20%
	8a-BoB	PEL_TRAWL	2 131	4 753	5 254		1 419	1 419	72 779	54 653	164 960	64 946	-61%
	8a-BoB	POTS	99 366	122 577	281 297	335 691	244 027	244 027	742 131	786 223	842 154	786 049	-7%
	8a-BoB	TRAMMEL	293 150	403 805	653 788	726 655	558 403	558 403	343 896	348 578	322 189	246 189	-24%
	8a-BoB	none	711 793	674 676	665 668	830 807	759 604	759 604		158 845			
	Sum u. 10m		2 183 320	2 487 964	3 720 798	4 069 005	2 785 637	2 785 637	3 999 912	3 974 745	3 833 062	3 497 828	-9%
	% u.10m		13%	11%	13%	13%	11%	11%	20%	20%	18%	19%	

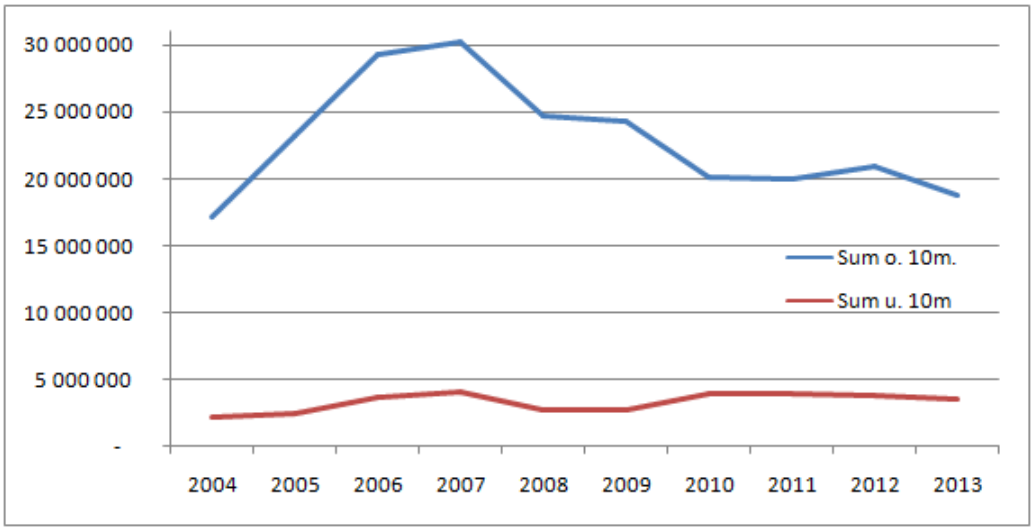


Figure 5.10.5.1.1 – Bay of Biscay – 8a – Overview of fishing effort in kW*days by <10m and >=10m vessels, 2004- 2013.

Table 5.10.5.1.2 – Bay of Biscay – 8b – Overview of fishing effort in kW*days by fisheries for vessels <10m, comparison with the vessels >=10m, 2004- 2013. Relative changes between 2012 and 2013 are presented.

Length Class	REG AREA COD	REG GEAR COD	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Rel.C 13-12
o. 10m.	Sum o. 10m.		3 901 506	9 498 305	10 950 565	9 940 628	8 909 928	9 024 236	7 515 638	7 360 157	10 113 983	10 251 487	1%
u. 10m.	8b-BoB	DREDGE	1 804	5 500	6 859	2 741	2 118	2 100	25 048	28 716	14 825	29 299	98%
	8b-BoB	GILL	268 817	352 259	307 297	300 720	301 690	301 690	359 179	310 881	379 396	481 166	27%
	8b-BoB	LONGLINE	77 924	52 621	70 753	73 665	95 834	95 730	88 463	126 485	197 647	191 515	-3%
	8b-BoB	OTTER	28 601	31 766	28 532	38 190	15 737	15 737	7 087	3 942	2 096	259	-88%
	8b-BoB	PEL_SEINE							705	4 230	2 585	3 878	50%
	8b-BoB	PEL_TRAWL		1 890	2 155	198			10 898	4 172	14 250	2 743	-81%
	8b-BoB	POTS	15 057	9 182	24 967	24 376	6 753	6 753	105 023	121 021	117 988	76 882	-35%
	8b-BoB	TRAMMEL	82 380	84 760	155 626	149 630	193 300	193 300	263 329	267 340	276 240	274 331	-1%
	8b-BoB	none	86 194	87 607	107 822	65 968	71 801	71 801		258 790			
	Sum u. 10m		560 777	625 585	704 011	655 488	687 233	687 111	859 732	1 125 577	1 005 027	1 060 073	5%
	% u.10m		14%	7%	6%	7%	8%	8%	11%	15%	10%	10%	

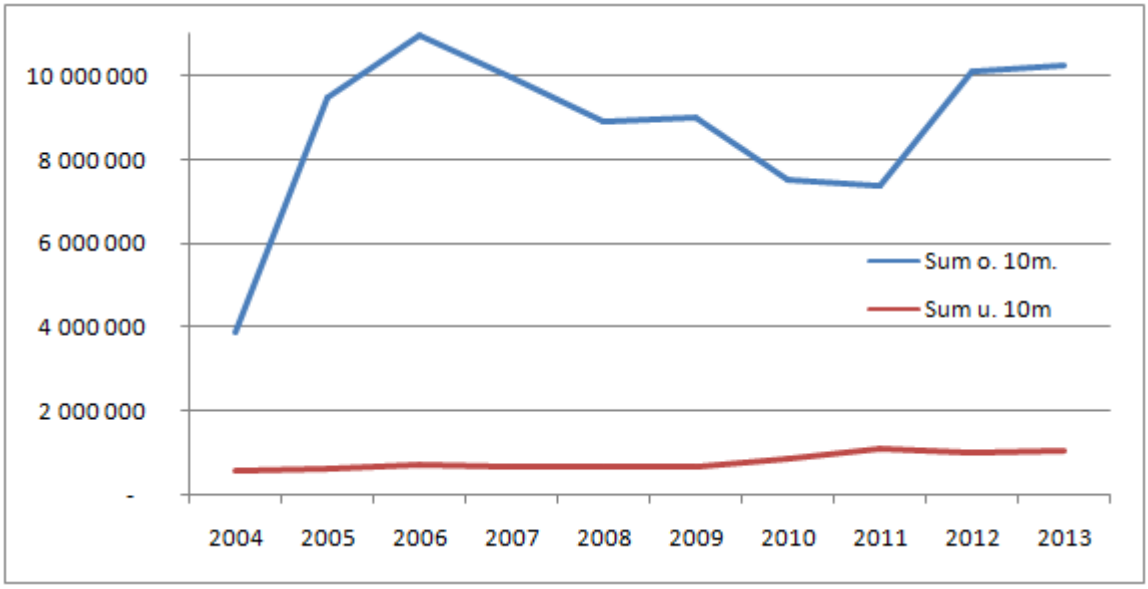


Figure 5.10.5.1.2 – Bay of Biscay – 8b – Overview of fishing effort in kW*days by <10m and >=10m vessels, 2004- 2013.

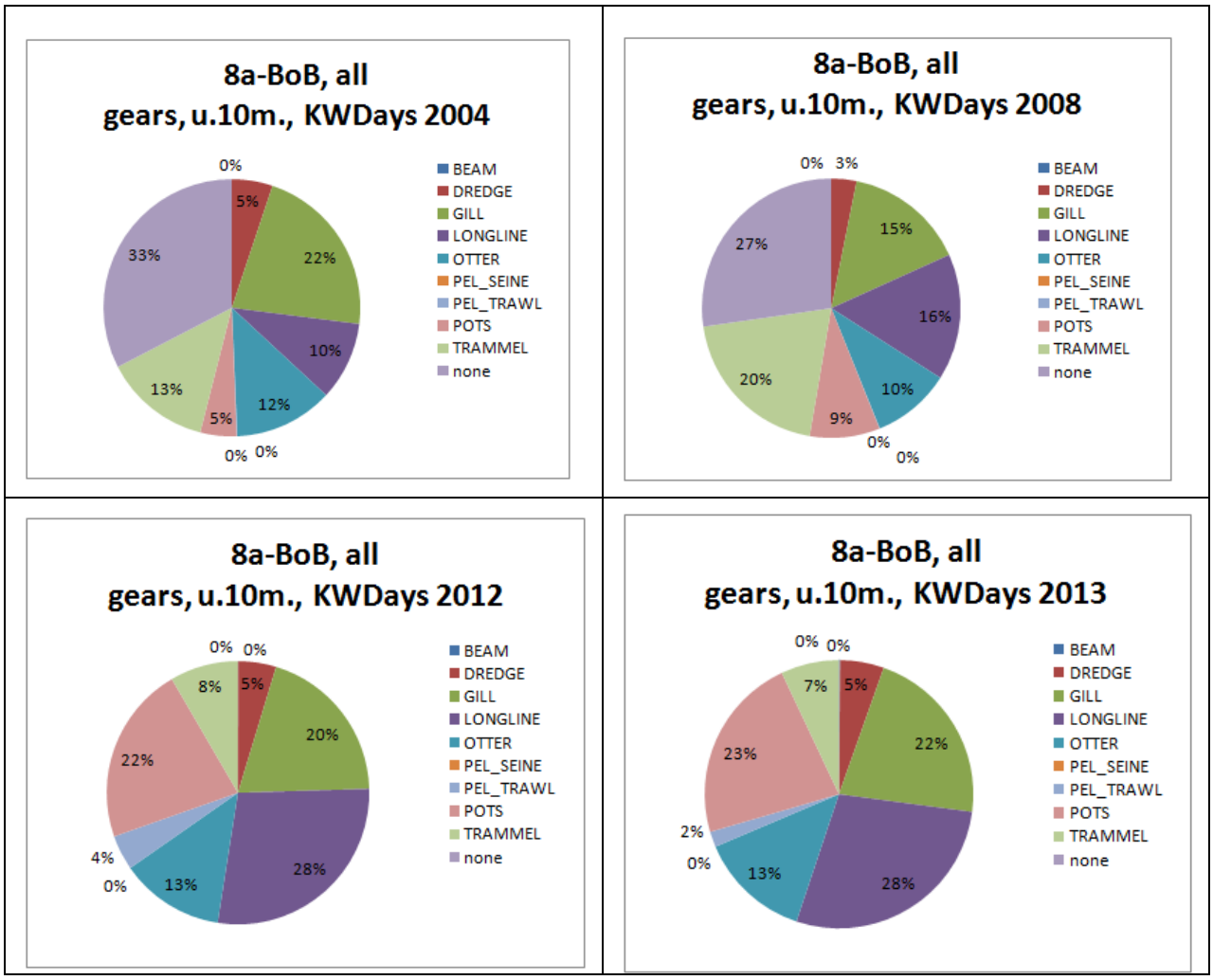


Figure 5.10.5.1.3 Bay of Biscay – 8a, Trend in the distribution per gear of the nominal effort (KWdays) for vessels <10m., 2004, 2008, 2012 and 2013.

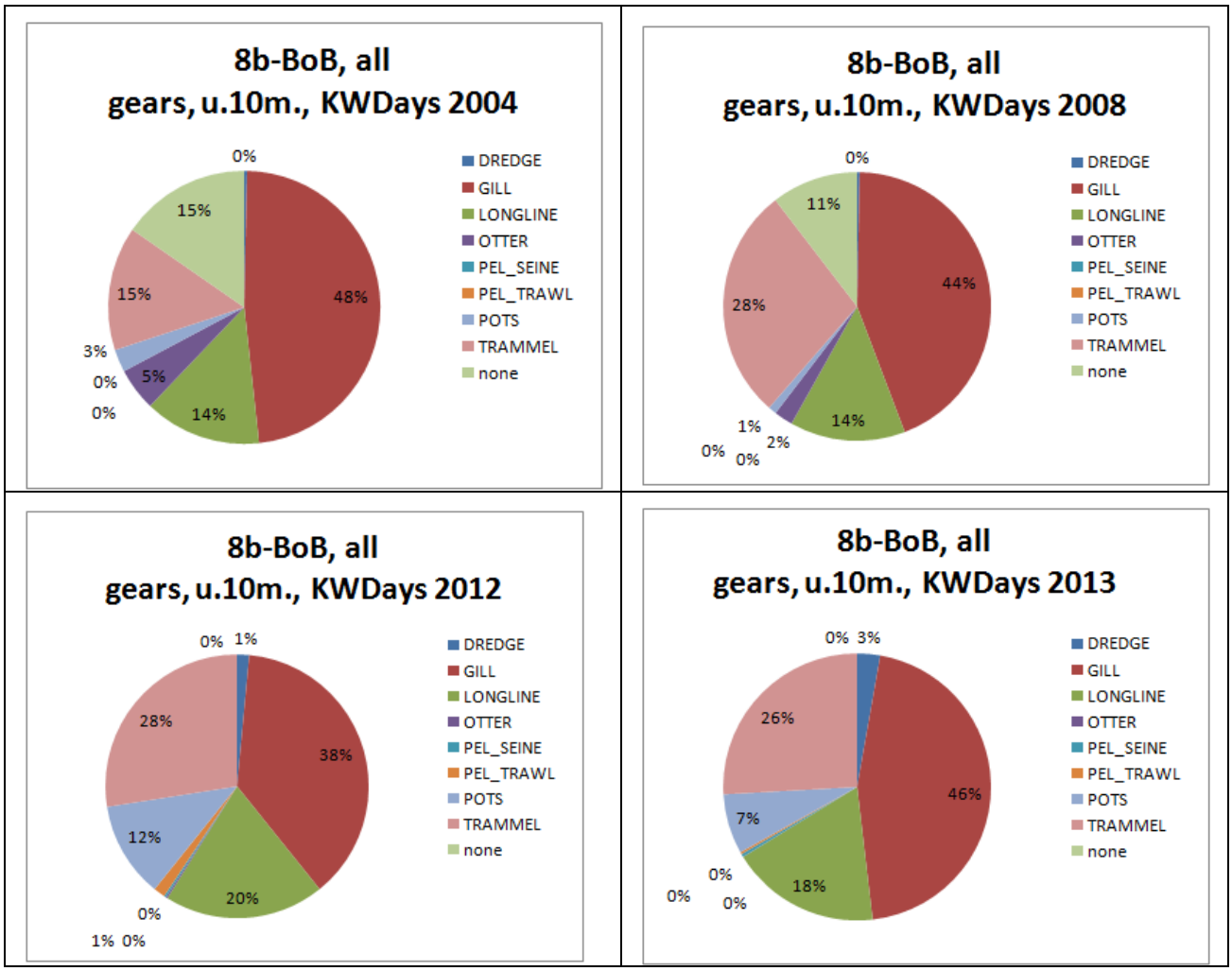


Figure 5.10.5.1.4 Bay of Biscay – 8b, Trend in the distribution per gear of the nominal effort (KWdays) for vessels <10m., 2004, 2008, 2012 and 2013.

Table 5.10.5.1.3 – Bay of Biscay – 8a - Trend in nominal effort (kW*days at sea) by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2004-2013. Derogations are sorted by gear, special condition (SPECON), and country (u. 10m length vessels). Data qualities are summarised in Section 4 of the report.

REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
8a-BoB	BEAM	none	FRA				2 552			2 376	352	1 320	4 656
8a-BoB	**Total**	**none**					**2 552**			**2 376**	**352**	**1 320**	**4 656**
8a-BoB	DREDGE	none	FRA	112 020	151 406	211 597	119 511	87 829	87 829	90 477	84 206	168 998	169 600
8a-BoB	**Total**	**none**		**112 020**	**151 406**	**211 597**	**119 511**	**87 829**	**87 829**	**90 477**	**84 206**	**168 998**	**169 600**
8a-BoB	DREDGE	SBcIIIart5	FRA							3 070	660	9 772	15 951
8a-BoB	**Total**	**SBcIIIart5**								**3 070**	**660**	**9 772**	**15 951**
8a-BoB	GILL	none	FRA	477 770	521 942	667 053	673 044	420 628	420 628	897 110	690 117	722 851	719 922
8a-BoB	**Total**	**none**		**477 770**	**521 942**	**667 053**	**673 044**	**420 628**	**420 628**	**897 110**	**690 117**	**722 851**	**719 922**
8a-BoB	GILL	SBcIIIart5	FRA							106 304	157 777	36 511	37 593
8a-BoB	**Total**	**SBcIIIart5**								**106 304**	**157 777**	**36 511**	**37 593**
8a-BoB	LONGLINE	none	FRA	215 468	322 477	763 802	879 977	439 161	439 161	1 179 563	1 098 648	1 011 852	918 257
8a-BoB	**Total**	**none**		**215 468**	**322 477**	**763 802**	**879 977**	**439 161**	**439 161**	**1 179 563**	**1 098 648**	**1 011 852**	**918 257**
8a-BoB	LONGLINE	SBcIIIart5	FRA							23 360	57 777	60 353	63 381
8a-BoB	**Total**	**SBcIIIart5**								**23 360**	**57 777**	**60 353**	**63 381**
8a-BoB	OTTER	none	FRA	271 622	286 328	471 349	496 698	274 566	274 566	396 595	388 428	469 747	434 536
8a-BoB	**Total**	**none**		**271 622**	**286 328**	**471 349**	**496 698**	**274 566**	**274 566**	**396 595**	**388 428**	**469 747**	**434 536**
8a-BoB	OTTER	SBcIIIart5	FRA							141 192	145 974	22 220	36 640
8a-BoB	**Total**	**SBcIIIart5**								**141 192**	**145 974**	**22 220**	**36 640**
8a-BoB	PEL_SEINE	none	FRA			990	4 070			1 059	2 507	135	108
8a-BoB	**Total**	**none**				**990**	**4 070**			**1 059**	**2 507**	**135**	**108**
8a-BoB	PEL_TRAWL	none	FRA	2 131	4 753	5 254		1 419	1 419	70 283	53 964	136 696	48 941
8a-BoB	**Total**	**none**		**2 131**	**4 753**	**5 254**		**1 419**	**1 419**	**70 283**	**53 964**	**136 696**	**48 941**
8a-BoB	PEL_TRAWL	SBcIIIart5	FRA							2 496	689	28 264	16 005
8a-BoB	**Total**	**SBcIIIart5**								**2 496**	**689**	**28 264**	**16 005**
8a-BoB	POTS	none	FRA	99 366	122 577	281 297	335 691	244 027	244 027	734 696	757 161	828 204	764 327
8a-BoB	**Total**	**none**		**99 366**	**122 577**	**281 297**	**335 691**	**244 027**	**244 027**	**734 696**	**757 161**	**828 204**	**764 327**
8a-BoB	POTS	SBcIIIart5	FRA							7 435	29 062	13 950	21 722
8a-BoB	**Total**	**SBcIIIart5**								**7 435**	**29 062**	**13 950**	**21 722**
8a-BoB	TRAMMEL	none	FRA	293 150	403 805	653 788	726 655	558 403	558 403	304 466	275 906	290 364	206 909
8a-BoB	**Total**	**none**		**293 150**	**403 805**	**653 788**	**726 655**	**558 403**	**558 403**	**304 466**	**275 906**	**290 364**	**206 909**
8a-BoB	TRAMMEL	SBcIIIart5	FRA							39 430	72 672	31 825	39 280
8a-BoB	**Total**	**SBcIIIart5**								**39 430**	**72 672**	**31 825**	**39 280**
8a-BoB	none	none	FRA	711 793	674 676	665 668	830 807	759 604	759 604		152 175		
8a-BoB	**Total**	**none**		**711 793**	**674 676**	**665 668**	**830 807**	**759 604**	**759 604**		**152 175**		
8a-BoB	none	SBcIIIart5	FRA								6 670		
8a-BoB	**Total**	**SBcIIIart5**									**6 670**		

Table 5.10.5.1.4 – Bay of Biscay – 8b - Trend in nominal effort (kW*days at sea) by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2004-2013. Derogations are sorted by gear, special condition (SPECON), and country (u. 10m length vessels). Data qualities are summarised in Section 4 of the report.

REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
8b-BoB	DREDGE	none	ENG					18					
		none	FRA	1 804	5 500	6 859	2 741	2 100	2 100	24 196	28 716	13 476	29 157
8b-BoB	**Total**	**none**		**1 804**	**5 500**	**6 859**	**2 741**	**2 118**	**2 100**	**24 196**	**28 716**	**13 476**	**29 157**
8b-BoB	DREDGE	SBcIIIart5	FRA							852		1 349	142
8b-BoB	**Total**	**SBcIIIart5**								**852**	-	**1 349**	**142**
8b-BoB	GILL	none	ENG			76	50						
		none	FRA	268 817	352 259	307 221	300 670	301 690	301 690	294 270	289 009	327 223	408 207
8b-BoB	**Total**	**none**		**268 817**	**352 259**	**307 297**	**300 720**	**301 690**	**301 690**	**294 270**	**289 009**	**327 223**	**408 207**
8b-BoB	GILL	SBcIIIart5	FRA							64 909	21 872	52 173	72 959
8b-BoB	**Total**	**SBcIIIart5**								**64 909**	**21 872**	**52 173**	**72 959**
8b-BoB	LONGLINE	none	ENG					104					
		none	FRA	77 924	52 621	70 753	73 665	95 730	95 730	88 463	126 485	188 146	184 532
8b-BoB	**Total**	**none**		**77 924**	**52 621**	**70 753**	**73 665**	**95 834**	**95 730**	**88 463**	**126 485**	**188 146**	**184 532**
8b-BoB	LONGLINE	SBcIIIart5	FRA									9 501	6 983
8b-BoB	**Total**	**SBcIIIart5**										**9 501**	**6 983**
8b-BoB	OTTER	none	FRA	28 601	31 766	28 532	38 190	15 737	15 737	7 087	3 942	2 096	259
8b-BoB	**Total**	**none**		**28 601**	**31 766**	**28 532**	**38 190**	**15 737**	**15 737**	**7 087**	**3 942**	**2 096**	**259**
8b-BoB	PEL_SEINE	none	FRA							705	4 230		
8b-BoB	**Total**	**none**								**705**	**4 230**	-	
8b-BoB	PEL_SEINE	SBcIIIart5	FRA									2 585	3 878
8b-BoB	**Total**	**SBcIIIart5**										**2 585**	**3 878**
8b-BoB	PEL_TRAWL	none	FRA		1 890	2 155	198			10 898	4 172	14 250	2 743
8b-BoB	**Total**	**none**			**1 890**	**2 155**	**198**			**10 898**	**4 172**	**14 250**	**2 743**
8b-BoB	POTS	none	ENG			592				59			
		none	FRA	15 057	9 182	24 375	24 376	6 753	6 753	104 964	121 021	107 936	72 022
8b-BoB	**Total**	**none**		**15 057**	**9 182**	**24 967**	**24 376**	**6 753**	**6 753**	**105 023**	**121 021**	**107 936**	**72 022**
8b-BoB	POTS	SBcIIIart5	FRA									10 052	4 860
8b-BoB	**Total**	**SBcIIIart5**										**10 052**	**4 860**
8b-BoB	TRAMMEL	none	FRA	82 380	84 760	155 626	149 630	193 300	193 300	156 110	184 901	169 929	177 542
8b-BoB	**Total**	**none**		**82 380**	**84 760**	**155 626**	**149 630**	**193 300**	**193 300**	**156 110**	**184 901**	**169 929**	**177 542**
8b-BoB	TRAMMEL	SBcIIIart5	FRA							107 219	82 439	106 311	96 789
8b-BoB	**Total**	**SBcIIIart5**								**107 219**	**82 439**	**106 311**	**96 789**
8b-BoB	none	none	FRA	86 194	87 607	107 822	65 968	71 801	71 801		258 636		
8b-BoB	**Total**	**none**		**86 194**	**87 607**	**107 822**	**65 968**	**71 801**	**71 801**		**258 636**		
8b-BoB	none	SBcIIIart5	FRA								154		
8b-BoB	**Total**	**SBcIIIart5**									**154**		

Table 5.10.5.1.5 – Bay of Biscay – 8a - Trend in Number of vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2004-2013. Derogations are sorted by gear, special condition (SPECON), and country (u. 10m length vessels). Data qualities are summarised in Section 4 of the report.

REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
8a-BoB	BEAM	none	FRA				1			1	1	1	1
8a-BoB	**Total**	**none**					**1**			**1**	**1**	**1**	**1**
8a-BoB	DREDGE	none	FRA	27	32	38	25	15	15	23	14	40	39
8a-BoB	**Total**	**none**		**27**	**32**	**38**	**25**	**15**	**15**	**23**	**14**	**40**	**39**
8a-BoB	DREDGE	SBcIIIart5	FRA							2	1	2	6
8a-BoB	**Total**	**SBcIIIart5**								**2**	**1**	**2**	**6**
8a-BoB	GILL	none	FRA	30	29	49	48	35	35	58	57	48	57
8a-BoB	**Total**	**none**		**30**	**29**	**49**	**48**	**35**	**35**	**58**	**57**	**48**	**57**
8a-BoB	GILL	SBcIIIart5	FRA							5	7	2	2
8a-BoB	**Total**	**SBcIIIart5**								**5**	**7**	**2**	**2**
8a-BoB	LONGLINE	none	FRA	55	62	150	153	91	90	171	168	161	154
8a-BoB	**Total**	**none**		**55**	**62**	**150**	**153**	**91**	**90**	**171**	**168**	**161**	**154**
8a-BoB	LONGLINE	SBcIIIart5	FRA							3	7	5	6
8a-BoB	**Total**	**SBcIIIart5**								**3**	**7**	**5**	**6**
8a-BoB	OTTER	none	FRA	19	14	36	50	27	27	28	31	37	29
8a-BoB	**Total**	**none**		**19**	**14**	**36**	**50**	**27**	**27**	**28**	**31**	**37**	**29**
8a-BoB	OTTER	SBcIIIart5	FRA							9	10	3	2
8a-BoB	**Total**	**SBcIIIart5**								**9**	**10**	**3**	**2**
8a-BoB	PEL_SEINE	none	FRA			2	1			1	2	1	1
8a-BoB	**Total**	**none**				**2**	**1**			**1**	**2**	**1**	**1**
8a-BoB	PEL_TRAWL	none	FRA	1	1	4		1	1	123	50	85	89
8a-BoB	**Total**	**none**		**1**	**1**	**4**		**1**	**1**	**123**	**50**	**85**	**89**
8a-BoB	PEL_TRAWL	SBcIIIart5	FRA							5	2	2	1
8a-BoB	**Total**	**SBcIIIart5**								**5**	**2**	**2**	**1**
8a-BoB	POTS	none	FRA	25	26	58	66	49	49	130	135	129	138
8a-BoB	**Total**	**none**		**25**	**26**	**58**	**66**	**49**	**49**	**130**	**135**	**129**	**138**
8a-BoB	POTS	SBcIIIart5	FRA							3	5	2	5
8a-BoB	**Total**	**SBcIIIart5**								**3**	**5**	**2**	**5**
8a-BoB	TRAMMEL	none	FRA	31	29	56	78	68	65	32	29	31	33
8a-BoB	**Total**	**none**		**31**	**29**	**56**	**78**	**68**	**65**	**32**	**29**	**31**	**33**
8a-BoB	TRAMMEL	SBcIIIart5	FRA							2	4	3	3
8a-BoB	**Total**	**SBcIIIart5**								**2**	**4**	**3**	**3**
8a-BoB	none	none	FRA	345	367	320	364	311	311		149		
8a-BoB	**Total**	**none**		**345**	**367**	**320**	**364**	**311**	**311**		**149**		
8a-BoB	none	SBcIIIart5	FRA								7		
8a-BoB	**Total**	**SBcIIIart5**									**7**		

Table 5.10.5.1.6 – Bay of Biscay – 8b - Trend in Number of vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2004-2013. Derogations are sorted by gear, special condition (SPECON), and country (u. 10m length vessels). Data qualities are summarised in Section 4 of the report.

REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
8b-BoB	DREDGE	none	ENG					1					
		none	FRA	1	3	2	2	1	1	3	7	7	4
8b-BoB	**Total**	**none**		**1**	**3**	**2**	**2**	**2**	**1**	**3**	**7**	**7**	**4**
8b-BoB	DREDGE	SBcIIIart5	FRA							1		1	1
8b-BoB	**Total**	**SBcIIIart5**								**1**	-	**1**	**1**
8b-BoB	GILL	none	ENG			2	1						
		none	FRA	34	27	28	33	21	21	28	24	20	26
8b-BoB	**Total**	**none**		**34**	**27**	**30**	**34**	**21**	**21**	**28**	**24**	**20**	**26**
8b-BoB	GILL	SBcIIIart5	FRA							2	2	4	3
8b-BoB	**Total**	**SBcIIIart5**								**2**	**2**	**4**	**3**
8b-BoB	LONGLINE	none	ENG					1					
		none	FRA	20	15	18	17	19	18	27	31	30	34
8b-BoB	**Total**	**none**		**20**	**15**	**18**	**17**	**20**	**18**	**27**	**31**	**30**	**34**
8b-BoB	LONGLINE	SBcIIIart5	FRA									2	4
8b-BoB	**Total**	**SBcIIIart5**										**2**	**4**
8b-BoB	OTTER	none	FRA	2	3	3	3	2	2	3	1	2	1
8b-BoB	**Total**	**none**		**2**	**3**	**3**	**3**	**2**	**2**	**3**	**1**	**2**	**1**
8b-BoB	PEL_SEINE	none	FRA							1	1		
8b-BoB	**Total**	**none**								**1**	**1**		
8b-BoB	PEL_SEINE	SBcIIIart5	FRA									1	1
8b-BoB	**Total**	**SBcIIIart5**										**1**	**1**
8b-BoB	PEL_TRAWL	none	FRA		1	7	1			14	8	12	11
8b-BoB	**Total**	**none**			**1**	**7**	**1**			**14**	**8**	**12**	**11**
8b-BoB	POTS	none	ENG			1				1			
		none	FRA	2	1	2	2	4	4	37	45	46	47
8b-BoB	**Total**	**none**		**2**	**1**	**3**	**2**	**4**	**4**	**38**	**45**	**46**	**47**
8b-BoB	POTS	SBcIIIart5	FRA									2	1
8b-BoB	**Total**	**SBcIIIart5**										**2**	**1**
8b-BoB	TRAMMEL	none	FRA	10	7	13	13	14	14	15	32	21	24
8b-BoB	**Total**	**none**		**10**	**7**	**13**	**13**	**14**	**14**	**15**	**32**	**21**	**24**
8b-BoB	TRAMMEL	SBcIIIart5	FRA							4	3	6	6
8b-BoB	**Total**	**SBcIIIart5**								**4**	**3**	**6**	**6**
8b-BoB	none	none	FRA	59	81	64	40	42	42		65		
8b-BoB	**Total**	**none**		**59**	**81**	**64**	**40**	**42**	**42**		**65**		
8b-BoB	none	SBcIIIart5	FRA								1		
8b-BoB	**Total**	**SBcIIIart5**									**1**		

5.10.5.2 Catches (landings and discards) of common sole and associated species by small boats by Member State

An overview of the landings of common sole and associated species of small boats by Member State and gear for the ICES division 8a and 8b is presented below. Comparison with the large vessels (>10m) is, as well, presented.

Almost all landings of common sole and associated species of small boats are French. No Spanish or Belgium data are available for small boats.

Some discards estimates are available since 2010. They have been calculated only for French fleets since 2010, the only country providing information on small boats in Bay of Biscay. They are presented below per gear since 2010 compared with the total landings of the small boats. **STECF 14-13 consider that care is required in the use of these data to draw firm conclusions about catch composition. STECF 14-13 notes that information collected on discards is incomplete, so the apparent absence of discards in the figures or tables for a given species/gear does not necessarily mean zero discards.**

Small boats represent the last three years almost 15% of the total landings of sole of the large vessels in 8a and 2% in 8b. Main fleets contributing to these catches in 8a are the gill and trammel net fleets and the otter trawl fleet. In 8b, the main fleets are the gill and trammel net fleets. For the associated species, contribution of the small boats to the total landings is important for Whiting in the ICES division 8a (around 20%). For the other species in other ICES division contribution is less than 3%.

The landings data available for French small boats before 2010 seem to be incomplete and since 2010 only French small boats data are available. **So care is required in the use of these data to draw firm conclusions about trends of landings of small boats particularly before 2010.**

Table 5.10.5.2.1 – Bay of Biscay – 8a– Overview of landings (t) of sole and associated species sorted by gear, for vessels <10m, compare with vessels >=10m, 2004-2013.

Length Class	REG AREA COD	REG GEAR COD	SPECIES	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
o. 10m.	**Sum_o10m**		**SOL**	**1 401**	**1 647**	**1 972**	**1 841**	**1 839**	**1 857**	**1 422**	**1 805**	**1 525**	**1 660**
u. 10m.	8a-BoB	DREDGE	SOL			0	0	0	0	0	0	0	1
	8a-BoB	GILL	SOL	22	24	23	30	5	5	142	81	85	64
	8a-BoB	LONGLINE	SOL	0		0	0	0	0	2	5	1	2
	8a-BoB	OTTER	SOL	37	26	58	71	22	22	72	69	102	67
	8a-BoB	PEL_SEINE	SOL								0		
	8a-BoB	PEL_TRAWL	SOL			0				0	0	12	6
	8a-BoB	POTS	SOL			0	0	0	0	5	2	2	0
	8a-BoB	TRAMMEL	SOL	45	49	96	117	88	88	33	93	44	41
	8a-BoB	none	SOL	1									
	Sum_u10m			**105**	**99**	**176**	**219**	**115**	**115**	**254**	**249**	**246**	**182**
	% u.10m			**7%**	**6%**	**9%**	**12%**	**6%**	**6%**	**18%**	**14%**	**16%**	**11%**
o. 10m.	**Sum_o10m**		**ANF**	**3 977**	**3 796**	**3 921**	**4 211**	**3 651**	**3 660**	**721**	**2 069**	**1 909**	**3 192**
u. 10m.	8a-BoB	DREDGE	ANF			0	0	0	0				0
	8a-BoB	GILL	ANF	32	10	8	3	2	2	12	11	4	28
	8a-BoB	LONGLINE	ANF			0		0	0	1	1	0	1
	8a-BoB	OTTER	ANF	1	1	2	0	0	0	2	1	0	2
	8a-BoB	PEL_SEINE	ANF			0							
	8a-BoB	PEL_TRAWL	ANF										1
	8a-BoB	POTS	ANF	0	0	0	0	0	0	0	0	0	2
	8a-BoB	TRAMMEL	ANF	12	53	45	29	17	17	4	6	2	8
	Sum_u10m			**45**	**64**	**55**	**32**	**19**	**19**	**19**	**20**	**6**	**42**
	% u.10m			**1%**	**2%**	**1%**	**1%**	**1%**	**1%**	**3%**	**1%**	**0%**	**1%**
o. 10m.	**Sum_o10m**		**HKE**	**2 647**	**3 718**	**2 363**	**2 462**	**3 805**	**3 765**	**6 549**	**8 071**	**11 663**	**13 787**
u. 10m.	8a-BoB	DREDGE	HKE							0	0		0
	8a-BoB	GILL	HKE	53	38	74	58	51	51	86	30	33	57
	8a-BoB	LONGLINE	HKE	0	0	0	0	0	0	4	2	4	7
	8a-BoB	OTTER	HKE	5	7	12	56	27	27	27	17	10	20
	8a-BoB	PEL_TRAWL	HKE			0				0		1	1
	8a-BoB	POTS	HKE		0		0			1	1	1	1
	8a-BoB	TRAMMEL	HKE	9	7	6	10	18	18	10	2	2	1
	Sum_u10m			**67**	**52**	**92**	**124**	**95**	**95**	**129**	**52**	**50**	**86**
	% u.10m			**3%**	**1%**	**4%**	**5%**	**3%**	**3%**	**2%**	**1%**	**0%**	**1%**
o. 10m.	**Sum_o10m**		**NEP**	**2 355**	**2 856**	**2 588**	**2 584**	**2 494**	**2 485**	**2 402**	**2 769**	**1 685**	**1 642**
u. 10m.	8a-BoB	DREDGE	NEP							0			
	8a-BoB	GILL	NEP		0	0				0	1	0	0
	8a-BoB	LONGLINE	NEP								0		8
	8a-BoB	OTTER	NEP	7	21	14	9			17	19	12	6
	8a-BoB	POTS	NEP			1				0	2	2	2
	8a-BoB	TRAMMEL	NEP							3	0	1	0
	Sum_u10m			**7**	**21**	**15**	**9**	**0**	**0**	**20**	**22**	**15**	**15**
	% u.10m			**0%**	**1%**	**1%**	**0%**	**0%**	**0%**	**1%**	**1%**	**1%**	**1%**
o. 10m.	**Sum_o10m**		**WHG**	**528**	**675**	**620**	**705**	**435**	**432**	**740**	**900**	**851**	**911**
u. 10m.	8a-BoB	DREDGE	WHG				0			0	0		0
	8a-BoB	GILL	WHG	10	16	25	9	8	8	31	36	37	50
	8a-BoB	LONGLINE	WHG	30	32	33	38	10	10	69	67	106	102
	8a-BoB	OTTER	WHG	2	2	5	3	1	1	14	19	23	16
	8a-BoB	PEL_SEINE	WHG							0			
	8a-BoB	PEL_TRAWL	WHG			0				0	0	2	1
	8a-BoB	POTS	WHG		0		0			1	3	4	11
	8a-BoB	TRAMMEL	WHG	3	6	11	5	1	1	5	5	3	3
	8a-BoB	none	WHG	0									
	Sum_u10m			**45**	**56**	**75**	**55**	**21**	**21**	**120**	**131**	**174**	**183**
	% u.10m			**9%**	**8%**	**12%**	**8%**	**5%**	**5%**	**16%**	**15%**	**21%**	**20%**

Table 5.10.5.2.2 – Bay of Biscay – 8b– Overview of landings (t) of sole and associated species sorted by gear, for vessels <10m, compare with vessels >=10m, 2004-2013.

Length Class	REG AREA COD	REG GEAR COD	SPECIES	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
o. 10m.	**Sum_o10m**		**SOL**	**1 112**	**1 618**	**1 424**	**1 411**	**1 472**	**1 521**	**1 565**	**1 793**	**1 706**	**1 781**
u. 10m.	8b-BoB	DREDGE	SOL								0		
	8b-BoB	GILL	SOL	7	4	5	2	2	2	12	6	10	6
	8b-BoB	LONGLINE	SOL		0	0				0	0	0	0
	8b-BoB	OTTER	SOL	1	1	1	2	1	1	0	0	0	
	8b-BoB	PEL_TRAWL	SOL			0							
	8b-BoB	POTS	SOL				0			0	0	0	0
	8b-BoB	TRAMMEL	SOL	6	1	7	3	14	14	29	22	19	22
	8b-BoB	none	SOL					0	0				
	Sum_u10m			**14**	**7**	**12**	**6**	**18**	**18**	**42**	**29**	**29**	**28**
	% u.10m			**1%**	**0%**	**1%**	**0%**	**1%**	**1%**	**3%**	**2%**	**2%**	**2%**
o. 10m.	**Sum_o10m**		**ANF**	**433**	**815**	**723**	**763**	**967**	**968**	**260**	**471**	**895**	**2 221**
u. 10m.	8b-BoB	GILL	ANF	0	0	0	0	0	0	0	0	0	1
	8b-BoB	LONGLINE	ANF				0						0
	8b-BoB	OTTER	ANF	0									
	8b-BoB	TRAMMEL	ANF		0	0		0	0	1	1	4	5
	Sum_u10m			**0**	**0**	**0**	**0**	**0**	**0**	**1**	**2**	**4**	**6**
	% u.10m			**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
o. 10m.	**Sum_o10m**		**HKE**	**399**	**1 263**	**600**	**1 023**	**1 464**	**1 464**	**2 009**	**1 588**	**2 737**	**3 681**
u. 10m.	8b-BoB	GILL	HKE	2	1	2	2	7	7	20	7	14	30
	8b-BoB	LONGLINE	HKE	20	8	12	27	30	30	41	83	79	76
	8b-BoB	OTTER	HKE	0	1	0	2	3	3	0	0	0	
	8b-BoB	PEL_TRAWL	HKE							0			
	8b-BoB	POTS	HKE								1	0	0
	8b-BoB	TRAMMEL	HKE	0	0	1	0	2	2	5	5	5	7
	Sum_u10m			**23**	**10**	**16**	**31**	**43**	**43**	**67**	**96**	**98**	**114**
	% u.10m			**6%**	**1%**	**3%**	**3%**	**3%**	**3%**	**3%**	**6%**	**4%**	**3%**
o. 10m.	**Sum_o10m**		**NEP**	**160**	**278**	**334**	**225**	**205**	**205**	**176**	**225**	**153**	**133**
u. 10m.	8b-BoB	GILL	NEP							0	0		
	8b-BoB	POTS	NEP									0	
	8b-BoB	TRAMMEL	NEP							0			
	Sum_u10m			**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	% u.10m			**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
o. 10m.	**Sum_o10m**		**WHG**	**106**	**272**	**243**	**438**	**255**	**255**	**190**	**225**	**283**	**257**
u. 10m.	8b-BoB	DREDGE	WHG				0						
	8b-BoB	GILL	WHG	0	0	0	0	0	0	1	0	1	1
	8b-BoB	LONGLINE	WHG	0	0	5	17	16	16	0	1	1	1
	8b-BoB	OTTER	WHG	0	0	0	1	0	0	0			
	8b-BoB	POTS	WHG										0
	8b-BoB	TRAMMEL	WHG	0	0	0	0	1	1	1	1	1	2
	Sum_u10m			**0**	**0**	**5**	**18**	**17**	**17**	**2**	**1**	**3**	**4**
	% u.10m			**0%**	**0%**	**2%**	**4%**	**7%**	**7%**	**1%**	**1%**	**1%**	**1%**

Table 5.10.5.2.3 – Bay of Biscay – 8a – Overview of discards estimates (t) of sole and associated species sorted by gear, for vessels <10m, compare with total landings for vessel >=10m, 2010-2013.

				Discards Estimates per year			
u. 10m.	Area	Gear	Species	2010 D	2011 D	2012 D	2013 D
	8a-BoB	DREDGE	SOL				
	8a-BoB	GILL	SOL	0			
	8a-BoB	LONGLINE	SOL				
	8a-BoB	OTTER	SOL	4	5	18	11
	8a-BoB	PEL_SEINE	SOL				
	8a-BoB	PEL_TRAWL	SOL				
	8a-BoB	POTS	SOL				
	8a-BoB	TRAMMEL	SOL	0	1	1	0
	8a-BoB	none	SOL				
	Sum_u10m Discards estimates			5	6	18	12
	Sum_u10m Total Landings			254	249	246	182
u. 10m.	Area	Gear	Species	2010 D	2011 D	2012 D	2013 D
	8a-BoB	DREDGE	ANF				
	8a-BoB	GILL	ANF	0			1
	8a-BoB	LONGLINE	ANF				
	8a-BoB	OTTER	ANF	0	0	0	0
	8a-BoB	PEL_SEINE	ANF				
	8a-BoB	PEL_TRAWL	ANF				
	8a-BoB	POTS	ANF				
	8a-BoB	TRAMMEL	ANF		0	1	0
	Sum_u10m Discards estimates			0	0	1	1
	Sum_u10m Total Landings			19	20	6	42
u. 10m.	Area	Gear	Species	2010 D	2011 D	2012 D	2013 D
	8a-BoB	DREDGE	HKE				
	8a-BoB	GILL	HKE	5	0	0	1
	8a-BoB	LONGLINE	HKE		-	-	1
	8a-BoB	OTTER	HKE	44	11	15	14
	8a-BoB	PEL_TRAWL	HKE	0		0	2
	8a-BoB	POTS	HKE				
	8a-BoB	TRAMMEL	HKE	1	0	4	
	Sum_u10m Discards estimates			51	12	19	18
	Sum_u10m Total Landings			129	52	50	86
u. 10m.	Area	Gear	Species	2010 D	2011 D	2012 D	2013 D
	8a-BoB	DREDGE	NEP				
	8a-BoB	GILL	NEP				
	8a-BoB	LONGLINE	NEP				
	8a-BoB	OTTER	NEP	6	12	9	3
	8a-BoB	POTS	NEP				
	8a-BoB	TRAMMEL	NEP		-		
	Sum_u10m Discards estimates			6	12	9	3
	Sum_u10m Total Landings			20	22	15	15
u. 10m.	Area	Gear	Species	2010 D	2011 D	2012 D	2013 D
	8a-BoB	DREDGE	WHG				
	8a-BoB	GILL	WHG	1	0		16
	8a-BoB	LONGLINE	WHG		13	1	0
	8a-BoB	OTTER	WHG	32	9	5	9
	8a-BoB	PEL_SEINE	WHG				
	8a-BoB	PEL_TRAWL	WHG	0	0	0	0
	8a-BoB	POTS	WHG				
	8a-BoB	TRAMMEL	WHG	11	2	1	
	8a-BoB	none	WHG				
	Sum_u10m Discards estimates			45	24	7	26
	Sum_u10m Total Landings			120	131	174	183

Table 5.10.5.2.4 – Bay of Biscay – 8b – Overview of discards estimates (t) of sole and associated species sorted by gear, for vessels <10m, compare with total landings for vessel >=10m, 2010-2013.

				Discards Estimates per year			
u. 10m.	Area	Gear	Species	2010 D	2011 D	2012 D	2013 D
	8b-BoB	DREDGE	SOL				
	8b-BoB	GILL	SOL	0	-	-	
	8b-BoB	LONGLINE	SOL				
	8b-BoB	OTTER	SOL	0	0	0	
	8b-BoB	PEL_TRAWL	SOL				
	8b-BoB	POTS	SOL				
	8b-BoB	TRAMMEL	SOL	7	0	4	2
	8b-BoB	none	SOL				
	Sum_u10m Discards estimates			7	0	4	2
	Sum_u10m Total Landings			42	29	29	28
u. 10m.	Area	Gear	Species	2010 D	2011 D	2012 D	2013 D
	8b-BoB	GILL	ANF			-	0
	8b-BoB	LONGLINE	ANF				
	8b-BoB	OTTER	ANF				
	8b-BoB	TRAMMEL	ANF	0	0	0	0
	Sum_u10m Discards estimates			0	0	0	0
	Sum_u10m Total Landings			1	2	4	6
u. 10m.	Area	Gear	Species	2010 D	2011 D	2012 D	2013 D
	8b-BoB	GILL	HKE	0	0	1	7
	8b-BoB	LONGLINE	HKE			1	0
	8b-BoB	OTTER	HKE	-	-	0	
	8b-BoB	PEL_TRAWL	HKE	-			
	8b-BoB	POTS	HKE				
	8b-BoB	TRAMMEL	HKE	1	1	0	4
	Sum_u10m Discards estimates			1	1	2	11
	Sum_u10m Total Landings			67	96	98	114
u. 10m.	Area	Gear	Species	2010 D	2011 D	2012 D	2013 D
	8b-BoB	GILL	NEP				
	8b-BoB	POTS	NEP				
	8b-BoB	TRAMMEL	NEP				
	Sum_u10m Discards estimates			0	0	0	0
	Sum_u10m Total Landings			0	0	0	0
u. 10m.	Area	Gear	Species	2010 D	2011 D	2012 D	2013 D
	8b-BoB	DREDGE	WHG				
	8b-BoB	GILL	WHG	0	-	0	0
	8b-BoB	LONGLINE	WHG			-	
	8b-BoB	OTTER	WHG				
	8b-BoB	POTS	WHG				
	8b-BoB	TRAMMEL	WHG	5	2	1	3
	Sum_u10m Discards estimates			5	2	1	4
	Sum_u10m Total Landings			2	1	3	4

Table 5.10.5.2.5 Bay of Biscay – 8a - Trend in total landings (t) and discards (t) for SOL for vessels <10m. Sorted by gear, special condition (SPECON) and country (u. 10m length vessels), 2004-2013. Data qualities are summarised in Section 4 of the report.

SPECIES	REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2004		2005		2006		2007		2008		2009		2010		2011		2012		2013	
					L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D
SOL	8a-BoB	DREDGE	none	FRA					0		0		0		0		0		0		0		1	
	8a-BoB	**Total**	**none**		-	-	-	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	1	-
	8a-BoB	DREDGE	SBcIIIart5	FRA													0							
	8a-BoB	**Total**	**SBcIIIart5**		-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	-	-
	8a-BoB	GILL	none	FRA	22		24		23		30		5		5		29	0	28		80		56	
	8a-BoB	**Total**	**none**		22	-	24	-	23	-	30	-	5	-	5	-	29	0	28	-	80	-	56	-
	8a-BoB	GILL	SBcIIIart5	FRA													113	0	53		6		8	
	8a-BoB	**Total**	**SBcIIIart5**		-	-	-	-	-	-	-	-	-	-	-	-	113	0	53	-	6	-	8	-
	8a-BoB	LONGLINE	none	FRA	0				0		0		0		0		1		1		1		2	
	8a-BoB	**Total**	**none**		0	-	-	-	0	-	0	-	0	-	0	-	1	-	1	-	1	-	2	-
	8a-BoB	LONGLINE	SBcIIIart5	FRA													1		3				0	
	8a-BoB	**Total**	**SBcIIIart5**		-	-	-	-	-	-	-	-	-	-	-	-	1	-	3	-	-	-	0	-
	8a-BoB	OTTER	none	FRA	37		26		58		71		22		22		19	1	22	2	99	17	55	10
	8a-BoB	**Total**	**none**		37	-	26	-	58	-	71	-	22	-	22	-	19	1	22	2	99	17	55	10
	8a-BoB	OTTER	SBcIIIart5	FRA													53	3	47	4	4	0	12	2
	8a-BoB	**Total**	**SBcIIIart5**		-	-	-	-	-	-	-	-	-	-	-	-	53	3	47	4	4	0	12	2
	8a-BoB	PEL_SEINE	none	FRA															0					
	8a-BoB	**Total**	**none**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-
	8a-BoB	PEL_TRAWL	none	FRA					0								0		0		2		1	
	8a-BoB	**Total**	**none**		-	-	-	-	0	-	-	-	-	-	-	-	0	-	0	-	2	-	1	-
	8a-BoB	PEL_TRAWL	SBcIIIart5	FRA																	10		5	
	8a-BoB	**Total**	**SBcIIIart5**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	5	-
	8a-BoB	POTS	none	FRA					0		0		0		0		3		1		2		0	
	8a-BoB	**Total**	**none**		-	-	-	-	0	-	0	-	0	-	0	-	3	-	1	-	2	-	0	-
	8a-BoB	POTS	SBcIIIart5	FRA													2		0				0	
	8a-BoB	**Total**	**SBcIIIart5**		-	-	-	-	-	-	-	-	-	-	-	-	2	-	0	-	-	-	0	-
	8a-BoB	TRAMMEL	none	FRA	45		49		96		117		88		88		25	0	26	0	35	0	30	0
	8a-BoB	**Total**	**none**		45	-	49	-	96	-	117	-	88	-	88	-	25	0	26	0	35	0	30	0
	8a-BoB	TRAMMEL	SBcIIIart5	FRA													8	0	67	1	9	0	11	0
	8a-BoB	**Total**	**SBcIIIart5**		-	-	-	-	-	-	-	-	-	-	-	-	8	0	67	1	9	0	11	0
	8a-BoB	none	none	FRA	1																			
	8a-BoB	**Total**	**SBcIIIart5**		1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	8a-BoB	**Total (all)**			**105**	-	**99**	-	**176**	-	**219**	-	**115**	-	**115**	-	**254**	**5**	**249**	**6**	**246**	**18**	**182**	**12**

Table 5.10.5.2.3 Bay of Biscay – 8b - Trend in total landings (t) and discards (t) for SOL for vessels <10m. Sorted by gear, special condition (SPECON) and country (u. 10m length vessels), 2000-2012. Data qualities are summarised in Section 4 of the report.

SPECIES	REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2004		2005		2006		2007		2008		2009		2010		2011		2012		2013	
					L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D
SOL	8b-BoB	DREDGE	none	FRA															0					
	8b-BoB	**Total**	**none**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-
	8b-BoB	GILL	none	FRA	7		4		5		2		2		2		6	0	5	-	6	-	4	
	8b-BoB	**Total**	**none**		7	-	4	-	5	-	2	-	2	-	2	-	6	0	5	-	6	-	4	-
	8b-BoB	GILL	SBcIIIart5	FRA													7	0	1		4	-	2	
	8b-BoB	**Total**	**SBcIIIart5**		-	-	-	-	-	-	-	-	-	-	-	-	7	0	1	-	4	-	2	-
	8b-BoB	LONGLINE	none	FRA			0		0								0		0		0		0	
	8b-BoB	**Total**	**none**		-	-	0	-	0	-	-	-	-	-	-	-	0	-	0	-	0	-	0	-
	8b-BoB	OTTER	none	FRA	1		1		1		2		1		1		0	0	0	0	0	0		
	8b-BoB	**Total**	**none**		1	-	1	-	1	-	2	-	1	-	1	-	0	0	0	0	0	0	-	-
	8b-BoB	PEL_TRAWL	none	FRA					0															
	8b-BoB	**Total**	**none**		-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	8b-BoB	POTS	none	FRA							0						0		0		0		0	
	8b-BoB	**Total**	**none**		-	-	-	-	-	-	0	-	-	-	-	-	0	-	0	-	0	-	0	-
	8b-BoB	TRAMMEL	none	FRA	6		1		7		3		14		14		10	2	8	0	8	2	11	2
	8b-BoB	**Total**	**none**		6	-	1	-	7	-	3	-	14	-	14	-	10	2	8	0	8	2	11	2
	8b-BoB	TRAMMEL	SBcIIIart5	FRA													19	5	13	0	10	2	10	1
	8b-BoB	**Total**	**SBcIIIart5**		-	-	-	-	-	-	-	-	-	-	-	-	19	5	13	0	10	2	10	1
	8b-BoB	none	none	FRA									0		0									
	8b-BoB	**Total**	**SBcIIIart5**		-	-	-	-	-	-	-	-	0	-	0	-	-	-	-	-	-	-	-	-
	8b-BoB	**Total (all)**			**14**	-	**7**	-	**12**	-	**6**	-	**18**	-	**18**	-	**42**	**7**	**29**	**0**	**29**	**4**	**28**	**2**

5.10.6 ToR 3 Spatio-temporal patterns in effective effort by fisheries

Figures 5.10.6.1 to 5.10.6.11 show the spatial distribution of the effective fishing effort for all the different fisheries operating in the Bay of Biscay during the period 2003 to 2013. The pattern seems similar for the whole period for most of the fleets.

The effort is mostly distributed all across the gulf with somewhat higher values close to the estuaries (Gironde, Baie de vilaine).

For trammel and otter, that are the two fisheries for which the effort increased between 2003 and 2007, the spatial effort allocation seems to follow the same trends, starting mainly in south Brittany and increasing in all the area in the following years.

The demersal seine fishery started in 2009 and increased since 2010.

Spanish fleets, included in the 2012&2013 figures, operate mainly in the >12milles' ICES rectangles.

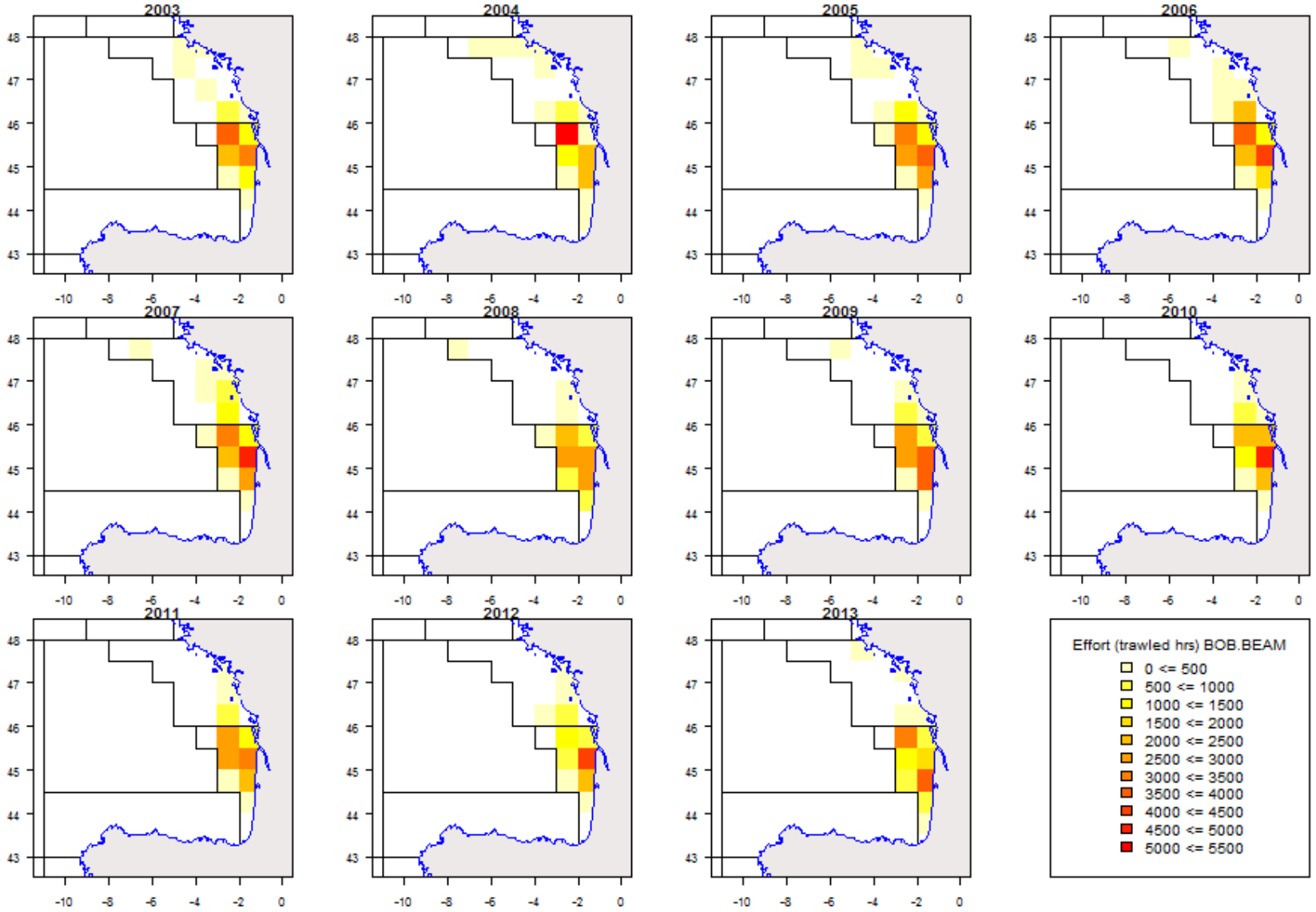


Figure 5.10.6.1. Bay of Biscay. Spatial distribution of effective fishing effort (fished hours) by ICES statistical rectangle for the Beam trawl gear, 2003-2013.

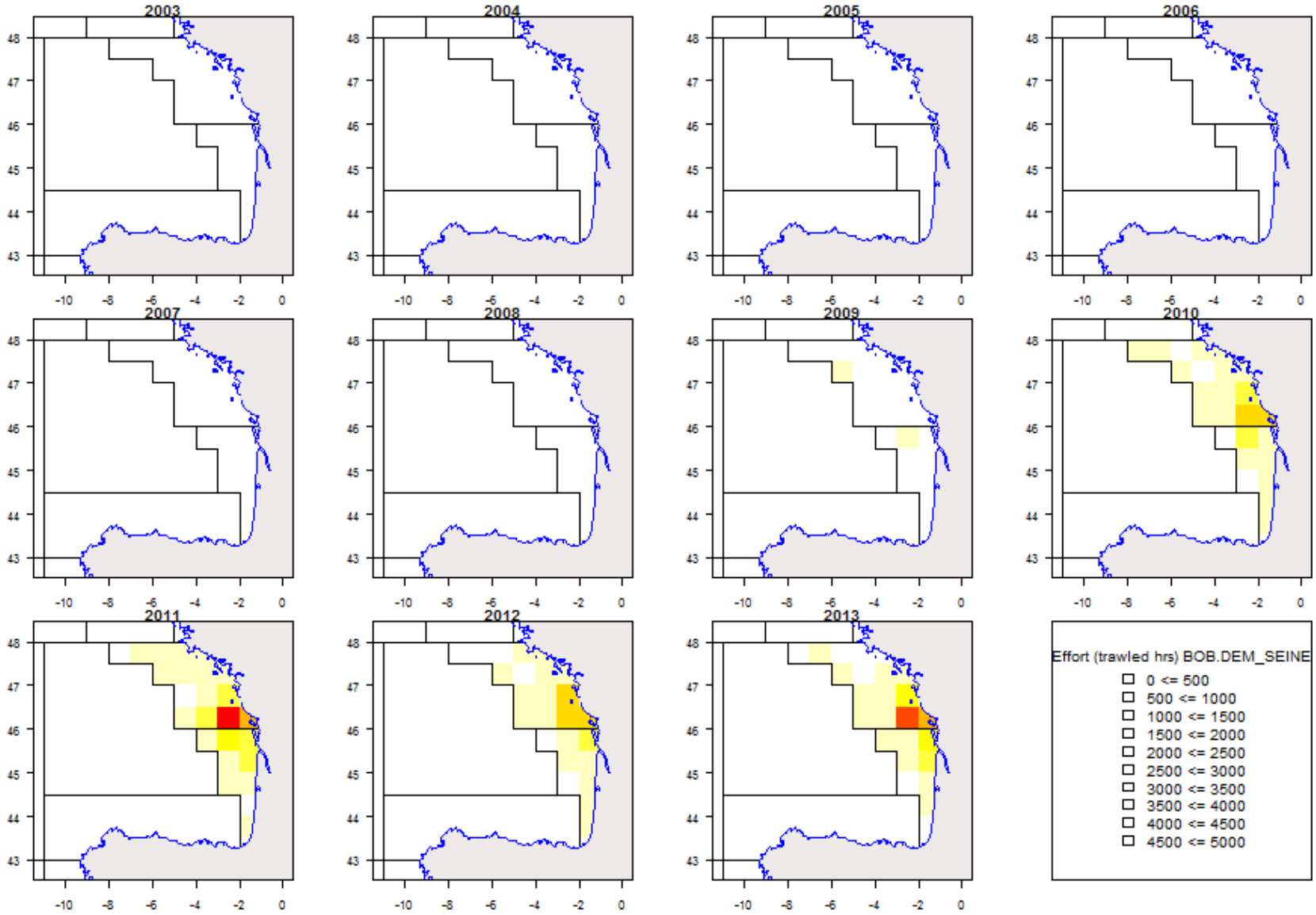


Figure 5.10.6.2. Bay of Biscay. Spatial distribution of effective fishing effort (fished hours) by ICES statistical rectangle for Demersal Seine gear, 2003-2013.

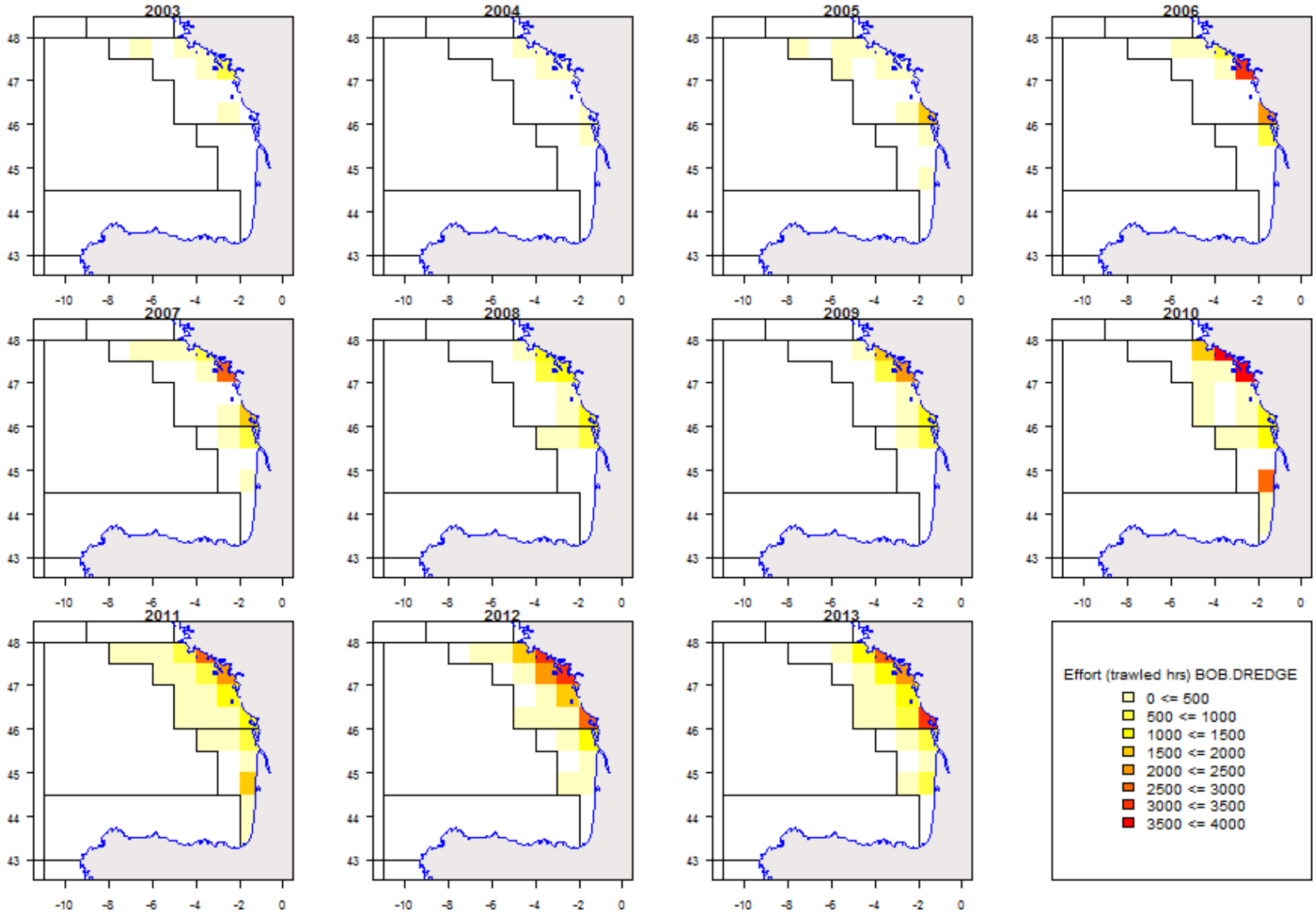


Figure 5.10.6.3. Bay of Biscay. Spatial distribution of effective fishing effort (fished hours) by ICES statistical rectangle for Dredge gear, 2003-2013.

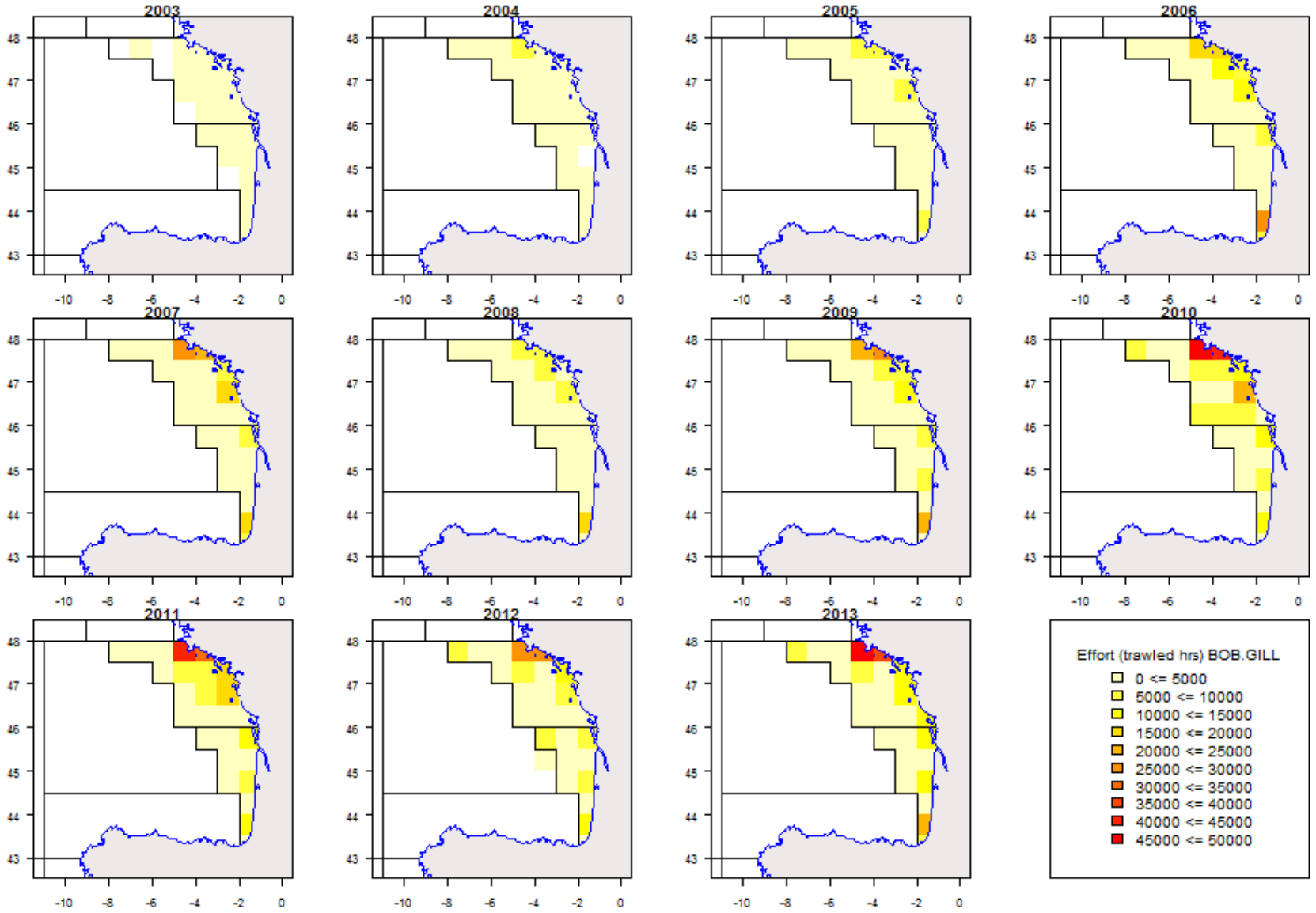


Figure 5.10.6.4. Bay of Biscay. Spatial distribution of effective fishing effort (fished hours) by ICES statistical rectangle for Gill net gear, 2003-2013.

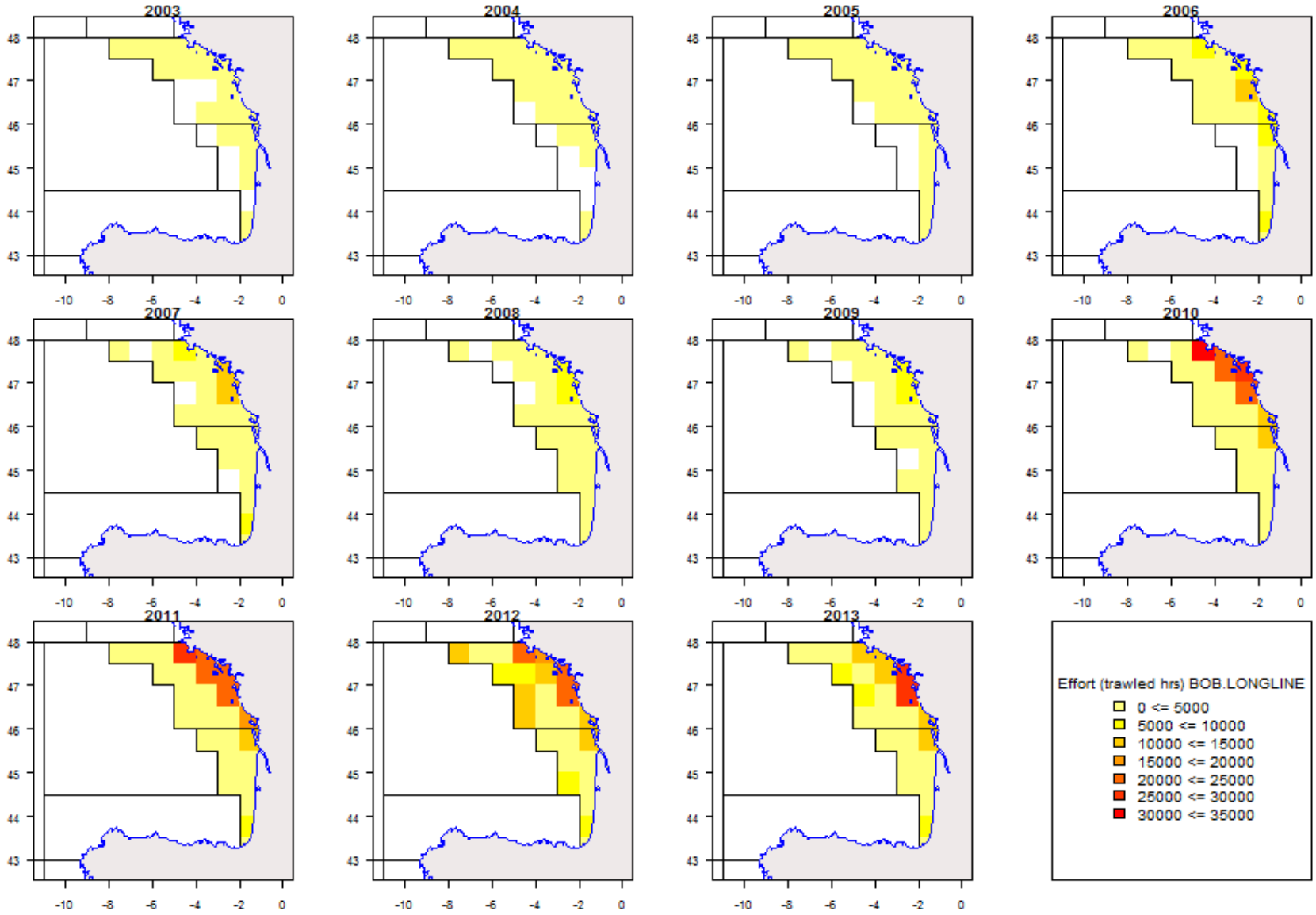


Figure 5.10.6.5. Bay of Biscay. Spatial distribution of effective fishing effort (fished hours) by ICES statistical rectangle for Longline gear, 2003-2013.

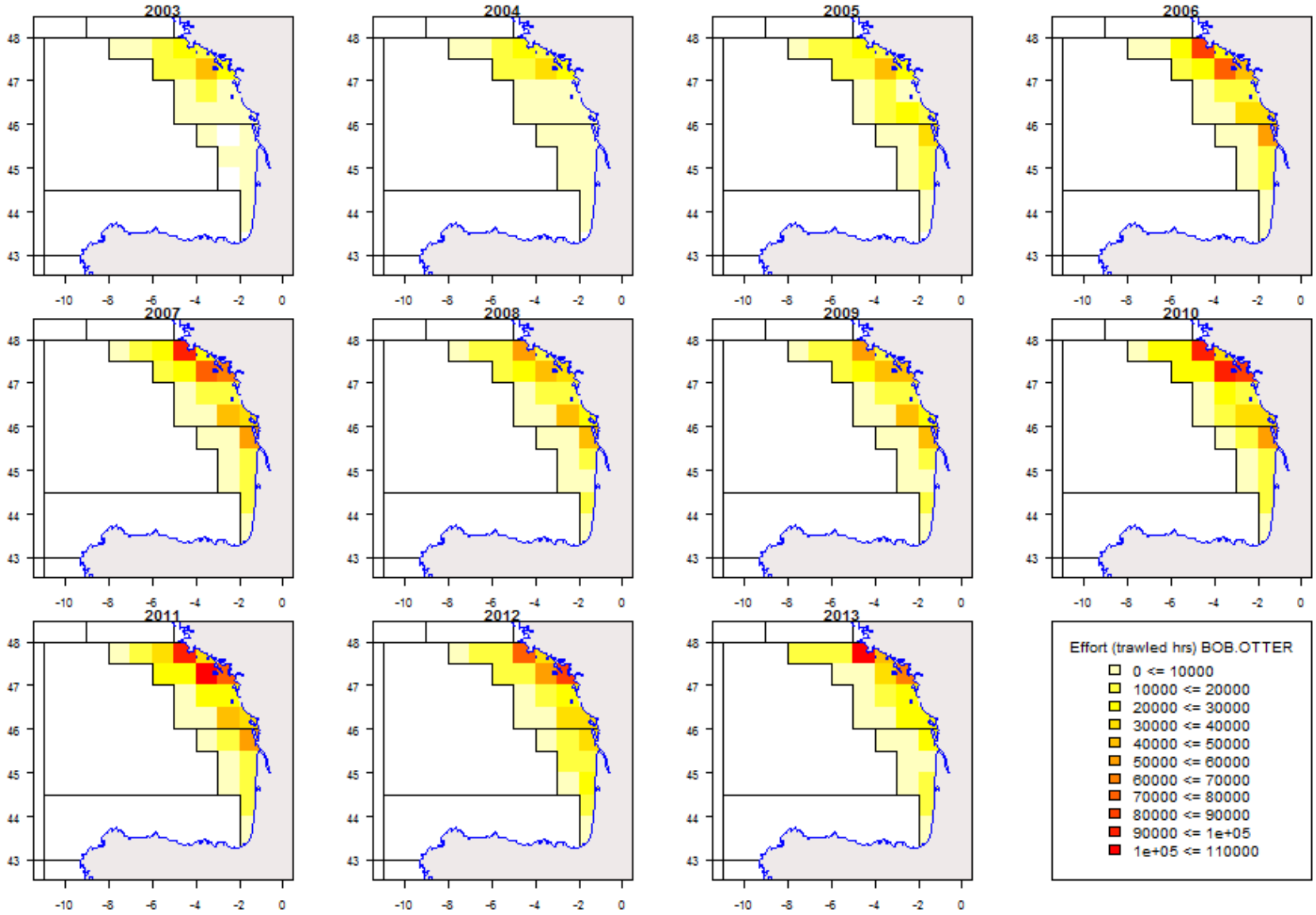


Figure 5.10.6.6. Bay of Biscay. Spatial distribution of effective fishing effort (fished hours) by ICES statistical rectangle for Otter Trawl gear, 2003-2013.

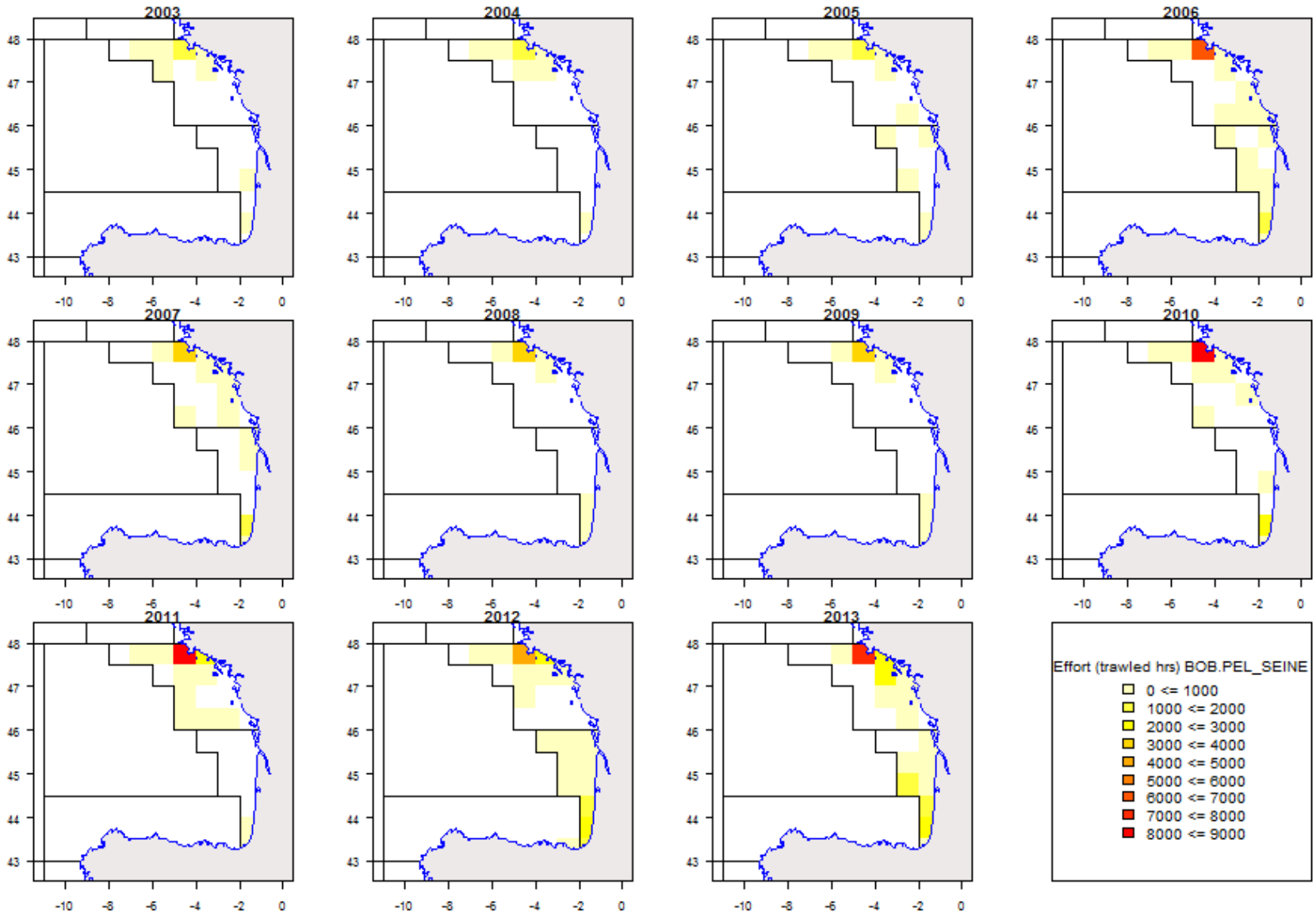


Figure 5.10.6.7. Bay of Biscay. Spatial distribution of effective fishing effort (fished hours) by ICES statistical rectangle for Pelagic Seine gear, 2003-2013.

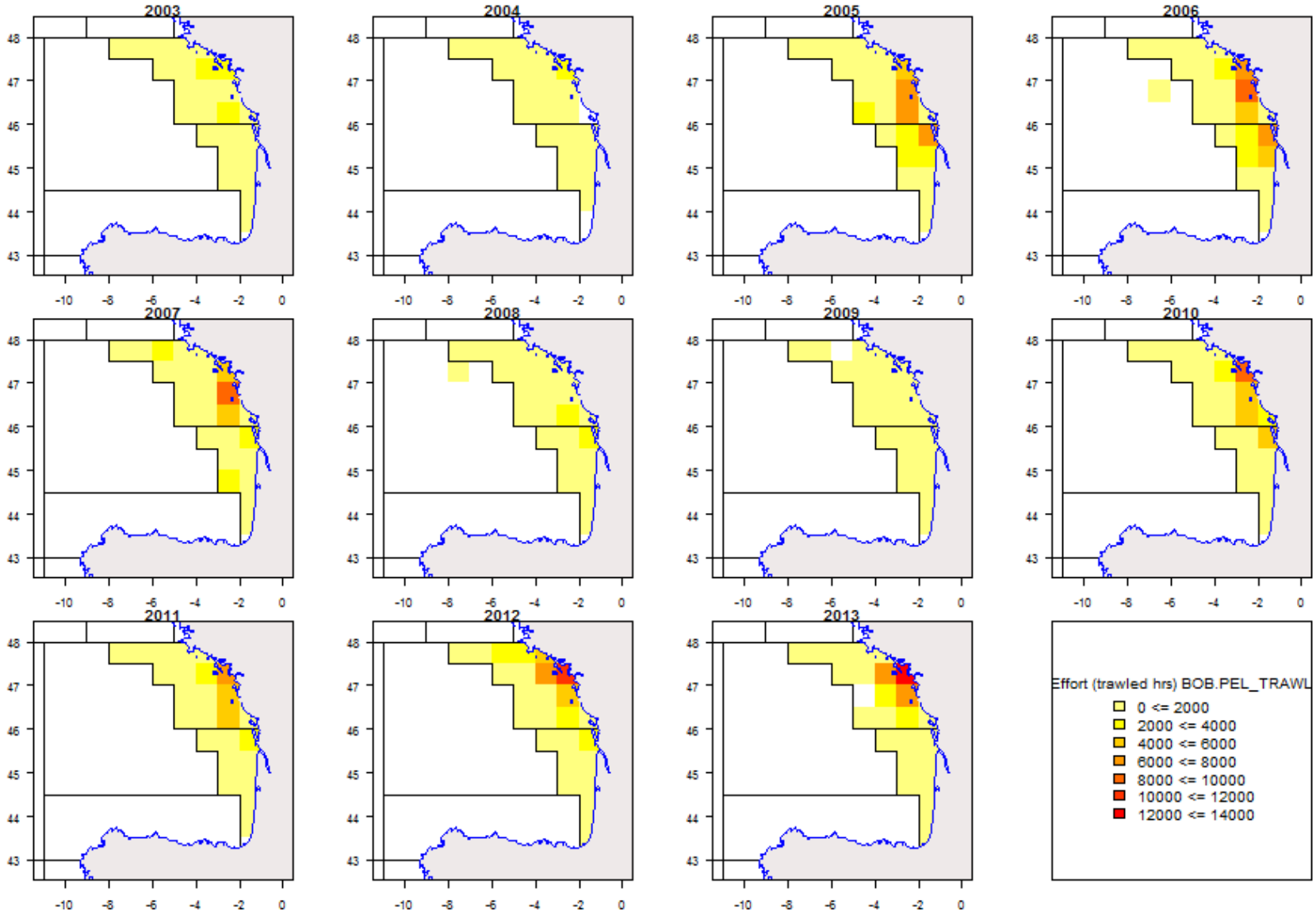


Figure 5.10.6.8. Bay of Biscay. Spatial distribution of effective fishing effort (fished hours) by ICES statistical rectangle for Pelagic Trawl gear, 2003-2013.

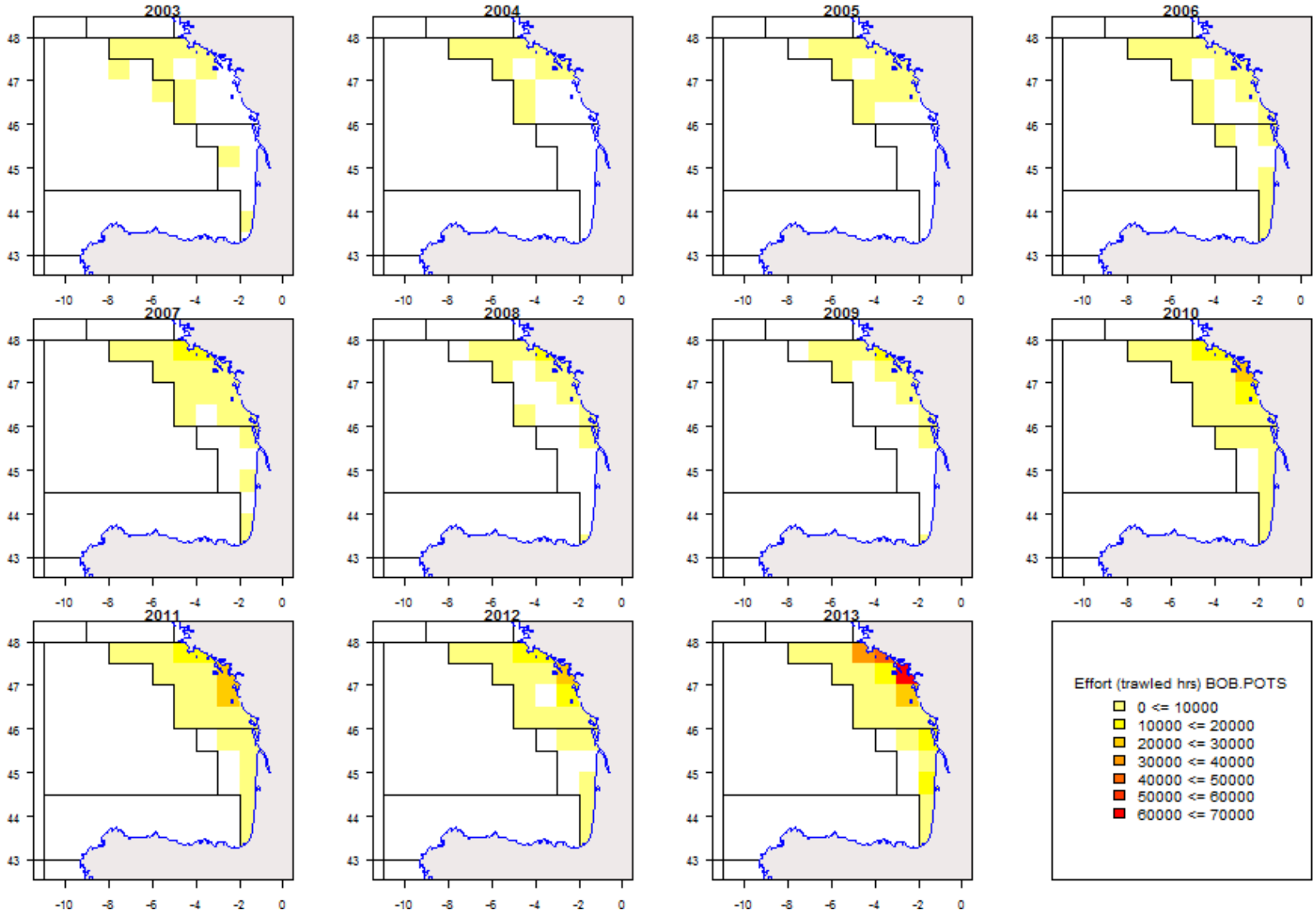


Figure 5.10.6.9. Bay of Biscay. Spatial distribution of effective fishing effort (fished hours) by ICES statistical rectangle for Pot gear, 2003-2013.

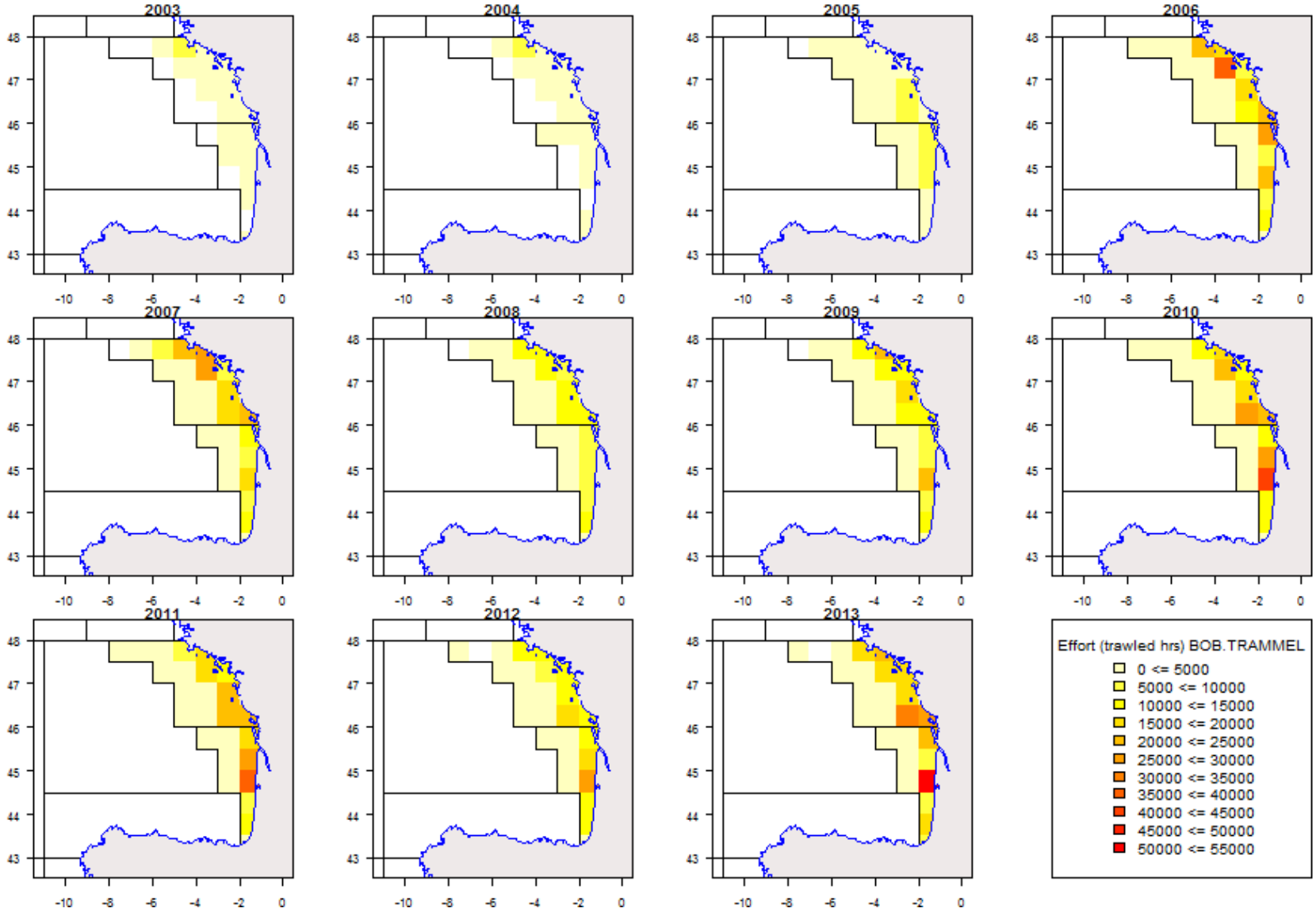


Figure 5.10.6.10. Bay of Biscay. Spatial distribution of effective fishing effort (trawled hours) by ICES statistical rectangle for Trammel net gear, 2003-2013.

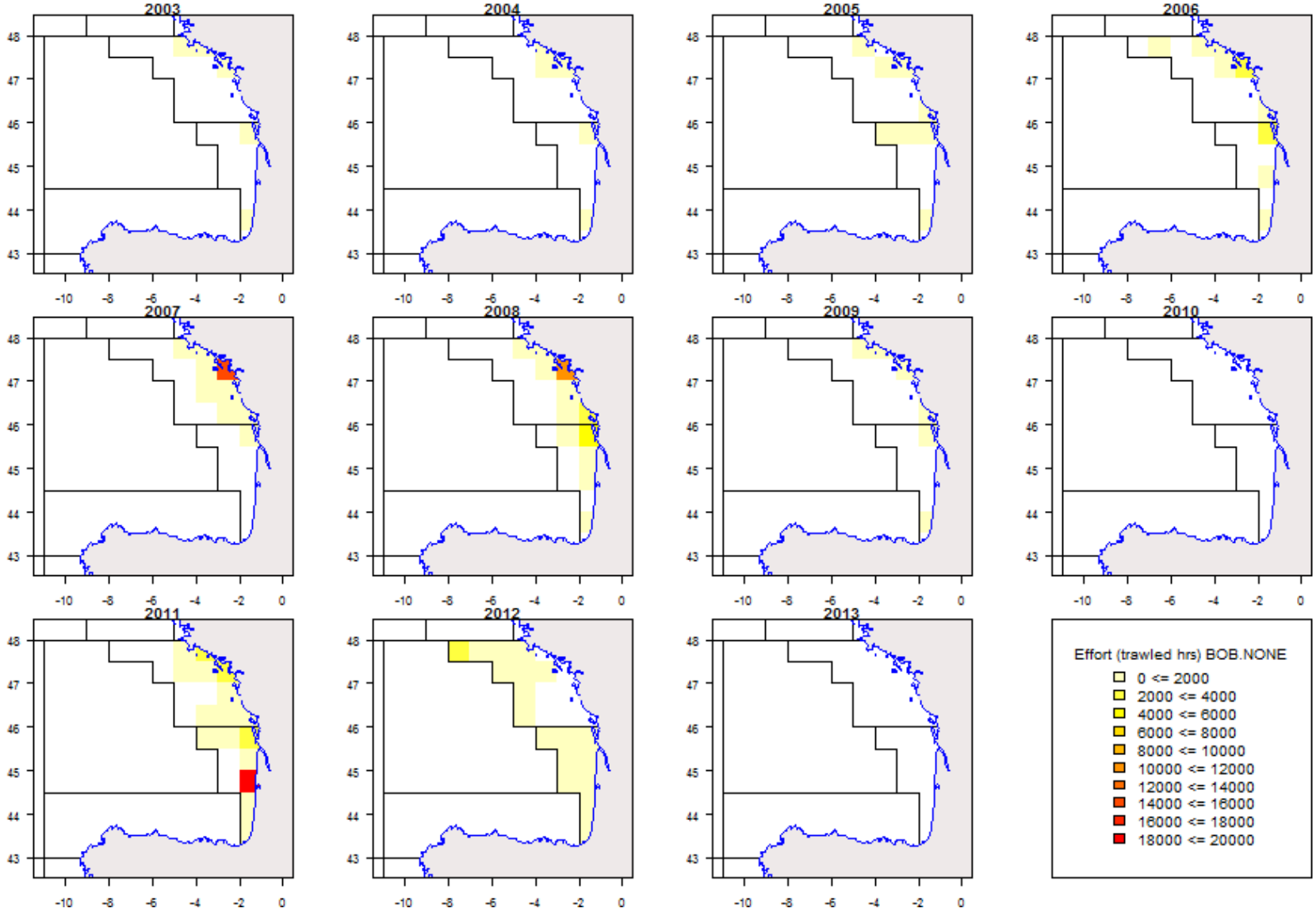


Figure 5.10.6.11. Bay of Biscay. Spatial distribution of effective fishing effort (trawled hours) by ICES statistical rectangle for none gear, 2003-2013.

5.10.7 ToR 4 Comments on data quality and any unexpected evolutions of the trends in catches and effort by Member State and fisheries

No further comment, see sections before where comments on data quality and any unexpected evolutions of the trends in catches and effort by Member State and fisheries have been made.

5.10.8 ToR 5 Correlation between partial sole mortality and fishing effort by Member State and fisheries

Fisheries specific data are broken down considering the specific condition SBCIIIART5 which is only provided for 2010 -2013 for French vessels and since 2006 for Belgian vessels, introducing a shift for the main gear type from the "none" category to the SPECON "SBCIIIART5" (Tables 5.10.8.1-2).

Discard estimates are scarce (information collected on discards is incomplete). Therefore, only landings are correlated against the fisheries specific fishing effort. Results are presented in the tables and figures below.

Note that only ~40% of the total F in Div. 8a and 8b is represented in the tables and figures below. So care is required in the use of these data to draw firm conclusions.

The STECF EWG 14-13 has estimated partial fishing mortalities of stock of Bay of Biscay sole for all identified regulated and non-regulated gear groups by Member States and correlated them against fishing effort. The major fisheries are presented below (Tables 5.10.8.1-2).

STECF EWG 14-13 notes that the correlations between the summed partial Fs for landings of the major fisheries and their estimated fishing efforts are significant in area 8a but most of them are insignificant in area 8b except trammel net fishery by France. **As the analyses do not include discards and the time series lack Spanish fisheries, STECF EWG 14-13 does not further interpret the fisheries specific correlations between partial F and fishing effort.**

Table 5.10.8.1 Bay of Biscay sole area ICES Div. 8a. The upper left part of the table lists estimated F trajectories from the management plan and the ICES 2014 sole assessment, while the lower left part lists partial Fs for landings of fisheries using major gears (o. 10m length vessels), specon assigns the licensed part of the fisheries. The right part of the table lists the respective trends in fishing effort (kW days at sea). A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock. Note that Spanish data are only available for 2012-2013.

From 2007 F reductions of 20 percent from previous year then from 2010 F reductions of 15% from previous year until F<0.27 (Fmsy=0.26)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
F plan					0.441	0.353	0.282	0.27	0.27	0.27	0.27
reduction F plan						-0.2	-0.2	-0.04	0	0	0
F estimated	0.482	0.366	0.457	0.431	0.441	0.47	0.434	0.381	0.365	0.424	0.469
						0.07	-0.08	-0.12	-0.04	0.16	0.11

Fpar

Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
BEL	BEAM	NONE	landings	0.00273	0.00243	0.00326								
BEL	BEAM	SBCIIIART5	landings				0.00602	0.00736	0.00175	0.00457	0.00344	0.00151	0.00339	0.00171
ENG	BEAM	NONE	landings						0					
ENG	GILL	NONE	landings					0	0	0				
ESP	OTTER	NONE	landings										5.00E-05	0.00017
FRA	BEAM	NONE	landings	2.00E-05	6.00E-05	7.00E-05	3.00E-05					3.00E-05		1.00E-05
FRA	BEAM	SBCIIIART5	landings								1.00E-05			
FRA	DEM_SEINE	NONE	landings								1.00E-05	5.00E-05		1.00E-05
FRA	DEM_SEINE	SBCIIIART5	landings										8.00E-05	0.00017
FRA	DREDGE	NONE	landings	0.00023	0.00014	0.00024	2.00E-04	0.00035	0.00024	0.00022	1.00E-05	2.00E-05	1.00E-05	0.00015
FRA	DREDGE	SBCIIIART5	landings								1.00E-05	2.00E-05	2.00E-05	3.00E-05
FRA	GILL	NONE	landings	0.0167	0.01692	0.02238	0.01697	0.01207	0.01388	0.01505	0.00069	0.00045	0.00059	0.00044
FRA	GILL	SBCIIIART5	landings								0.00845	0.00395	0.00247	0.00462
FRA	LONGLINE	NONE	landings		0.00041	0.00099	0.00072	0	1.00E-05	1.00E-05	1.00E-05	3.00E-05	1.00E-05	0
FRA	LONGLINE	SBCIIIART5	landings								0.00021			0
FRA	NONE	NONE	landings				0.00044	1.00E-05	3.00E-05	3.00E-05				
FRA	OTTER	NONE	landings	0.06122	0.05183	0.05961	0.06232	0.07199	0.06166	0.0667	0.01205	0.01206	0.0098	0.0095
FRA	OTTER	SBCIIIART5	landings								0.03515	0.03138	0.04048	0.04662
FRA	PEL_SEINE	NONE	landings				0							
FRA	PEL_SEINE	SBCIIIART5	landings											0
FRA	PEL_TRAWL	NONE	landings	0.00024	0	2.00E-05	4.00E-05	0.00011	0.00053	0.00058	2.00E-05	0.00017	1.00E-05	1.00E-05
FRA	PEL_TRAWL	SBCIIIART5	landings								0.00011	0.00015	0.00015	6.00E-05
FRA	POTS	NONE	landings	2.00E-05			0				0	0.00012	0	0
FRA	POTS	SBCIIIART5	landings								1.00E-05	1.00E-05	3.00E-05	2.00E-05
FRA	TRAMMEL	NONE	landings	0.05738	0.05638	0.07926	0.09061	0.09418	0.12293	0.1337	0.00212	0.00135	0.00058	0.0015
FRA	TRAMMEL	SBCIIIART5	landings								0.07425	0.09092	0.092	0.11882
Sum				0.13854	0.12817	0.16583	0.17735	0.18607	0.20103	0.22086	0.13655	0.14222	0.14967	0.18384
(Sum of Fpars)/estimated F				0.2874	0.3502	0.3629	0.4115	0.4219	0.4277	0.5089	0.3584	0.3896	0.353	0.392

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Effort estimated	15145751	16511985	22121595	28411105	29741623	23770281	23616435	19873329	19858281	19577910	17509047

EFFORT

kW days at sea	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
	41337	105779	123376								
				241716	226017	91076	108412	152261	150812	136302	102233
						880					
		48409	32606	121744	39301	18347	44662	60023	63140	52447	59503.79
										675020	412946.5
	15860	26032	35522	4104					1111		412
								588			
								331067	612472	99372	142166
									215	542371	500007.5
	395354	414407	420148	533612	468381	377579	366074	90026	122145	176601	138423.8
								22677	8443	70603	83465.08
	1254706	1420988	2128437	2396764	1821041	1790230	1765262	1534146	1274483	981798	977793
								575670	471754	776035	821798.3
	183650	241134	365723	656098	621551	546023	546023	603895	701468	710982	750392.8
								72918	43375	151567	183220.8
	110276	103586	74578	155533	172530	268115	268115		70220		
	9749134	11645225	14681996	18526531	20544828	17065302	16945895	6396041	6287764	4506741	3573180
								5344311	5556913	6068276	5545005
	395906	459144	447532	591583	611037	637343	637028	684055	744393	556022	475352
								828		588	7055
	2221241	768951	2022315	2499642	2148883	482127	441705	1203385	1033030	1178408	832171.2
								101972	108910	337915	370110.5
	203191	312543	173870	153118	126862	22195	22195	619138	551436	451463	469817.5
								20990	71587	134265	138783.3
	575096	965787	1615492	2530660	2961192	2471064	2471064	355544	307538	249151	257475.5
								1703794	1677072	1721983	1667735
	15145751	16511985	22121595	28411105	29741623	23770281	23616435	19873329	19858281	19577910	17509047

Table 5.10.8.2 Bay of Biscay sole area ICES Div. 8b. The upper left part of the table lists estimated F trajectories from the management plan and the ICES 2013 sole assessment, while the lower left part lists partial Fs for landings of fisheries using major gears (o. 10m length vessels), specon assigns the licensed part of the fisheries. The right part of the table lists the respective trends in fishing effort (kW days at sea). A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock. Note that Spanish data are only available for 2012-2013.

From 2007 F reductions of 20 percent from previous year then from 2010 F reductions of 15% from previous year until F<0.27 (Fmsy=0.26)

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
F plan					0.441	0.353	0.282	0.27	0.27	0.27	0.27
reduction F plan						-0.2	-0.2	-0.04	0	0	0
F estimated	0.482	0.366	0.457	0.431	0.441	0.47	0.434	0.381	0.365	0.424	0.469
						0.07	-0.08	-0.12	-0.04	0.16	0.11

Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Fpar														
BEL	BEAM	NONE	landings	0.03198	0.02674	0.03186								
BEL	BEAM	SBCIIIART5	landings				0.02819	0.03287	0.0296	0.03852	0.03992	0.02872	0.03441	0.03284
ESP	GILL	NONE	landings										4.00E-05	1.00E-05
ESP	NONE	NONE	landings										0	5.00E-05
ESP	OTTER	NONE	landings										0.00022	7.00E-04
ESP	TRAMMEL	NONE	landings										1.00E-05	1.00E-05
FRA	BEAM	NONE	landings									2.00E-05	0	
FRA	DEM_SEINE	NONE	landings									1.00E-05		1.00E-05
FRA	DEM_SEINE	SBCIIIART5	landings										0	1.00E-05
FRA	DREDGE	NONE	landings	2.00E-05		3.00E-05	1.00E-05	0	0	0	1.00E-05	1.00E-05	1.00E-05	2.00E-05
FRA	DREDGE	SBCIIIART5	landings								1.00E-05	5.00E-05	1.00E-05	2.00E-05
FRA	GILL	NONE	landings	0.01202	0.00989	0.01655	0.00728	0.00371	0.00348	0.00378	0.00028	0.00014	9.00E-05	7.00E-05
FRA	GILL	SBCIIIART5	landings								0.00191	0.00324	0.0032	0.00358
FRA	LONGLINE	NONE	landings	0	5.00E-04	1.00E-05	0.00012	1.00E-05	0	0	3.00E-05	3.00E-05	5.00E-05	0
FRA	LONGLINE	SBCIIIART5	landings								2.00E-05	4.00E-05	8.00E-05	0
FRA	NONE	NONE	landings	0	8.00E-05	3.00E-05		0	0	0				
FRA	OTTER	NONE	landings	0.02274	0.01635	0.02745	0.01772	0.02382	0.02332	0.02523	0.00232	0.0025	0.00131	0.00232
FRA	OTTER	SBCIIIART5	landings								0.0269	0.02188	0.02419	0.03138
FRA	PEL_SEINE	NONE	landings		0						0	0		
FRA	PEL_TRAWL	NONE	landings	1.00E-05	0	0.00014	2.00E-05	5.00E-05	3.00E-05	3.00E-05	1.00E-05	0	1.00E-05	1.00E-05
FRA	PEL_TRAWL	SBCIIIART5	landings								0.00018	9.00E-05	0.00053	0.00036
FRA	POTS	NONE	landings				0	0			0	0		
FRA	POTS	SBCIIIART5	landings								3.00E-05	2.00E-05	0.00028	2.00E-05
FRA	TRAMMEL	NONE	landings	0.05895	0.04814	0.08683	0.07471	0.08211	0.10449	0.11326	0.00127	0.00056	0.00023	0.00035
FRA	TRAMMEL	SBCIIIART5	landings								0.07743	0.08397	0.10272	0.12547
Sum				0.12572	0.1017	0.1629	0.12805	0.14257	0.16092	0.18082	0.15032	0.14128	0.16739	0.19723
(Sum of Fpars)/estimated F				0.2608	0.2779	0.3565	0.2971	0.3233	0.3424	0.4166	0.3945	0.3871	0.3948	0.4205

Effort estimated	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
	3926319	3607880	9308575	10727762	9863994	8868476	8970332	7499913	7331819	9072952	8801180

EFFORT

kW days at sea	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
	577330	550314	712933								
				701274	754024	684939	815860	760585	747810	586698	664369
										104564	59802.48
										91180	
										1293234	1246021
										3792	2682.75
					438				147	440	
								52079	137008	51302	49733
										64490	148785.5
	2511	7536	52315	64803	36614	33423	33423	29311	18220	47724	19095.5
								3598	7395	12098	7716.5
	352927	394579	1217137	1429468	1173159	1044466	1044466	550893	388953	199981	176306.7
								199718	249443	364334	457294.1
	51483	59324	235437	260702	236924	194503	194503	460343	424089	301524	269931.8
								37755	56927	121611	136345.3
	73154	75689	116764	192933	106136	181700	181700		76984		
	1254536	1413043	3780100	3828101	4114702	3789258	3781816	640861	985186	626927	741434
								1976798	1745826	2130614	2202399
	70740	81363	121441	165202	134820	132961	132961	124892	85470	151911	89713
	814501	367024	1126082	1576779	975175	406269	386776	361874	195840	293078	101936.5
								45250	75157	128099	172874.3
	26482	35213	2981	34432	38021	2716	2716	28349	28015	13444	8757
								24946	24870	52304	41564.5
	702655	623795	1943385	2474068	2293981	2398241	2396111	124925	87703	147220	134813.2
								2077736	1996776	2286383	2069605
	3926319	3607880	9308575	10727762	9863994	8868476	8970332	7499913	7331819	9072952	8801180

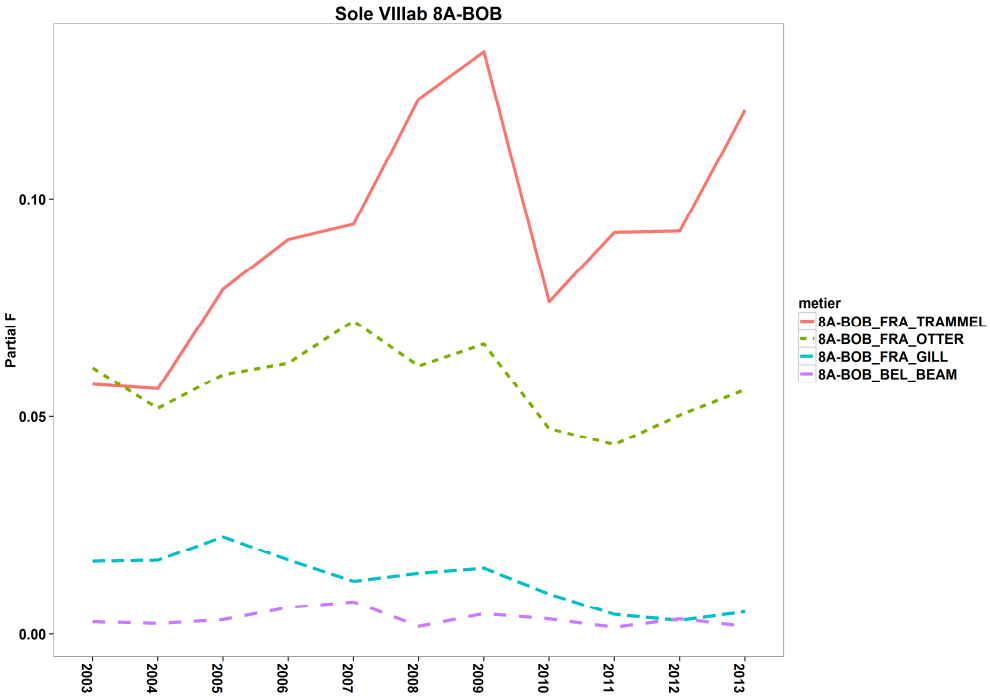


Fig. 5.10.8.1. Time series of sole partial fishing mortalities (based on partitioning the F from ICES assessment (ICES, 2014)) by the major fisheries in the Bay of Biscay sole area ICES Div. 8a 2003-2013 (o. 10m length vessels). **Discard estimates are scarce (information collected on discards is incomplete). Therefore, only sole partial fishing mortalities based on landings are represented below. Note that Spanish data are only available for 2012-2013.**

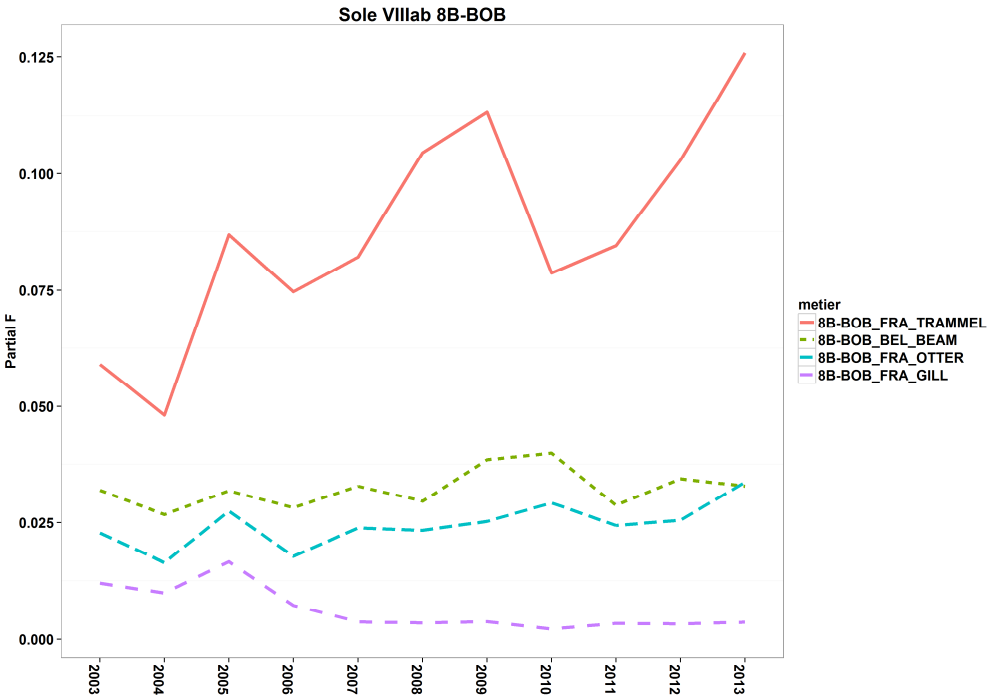


Fig. 5.10.8.2. Time series of sole partial fishing mortalities (based on partitioning the F from ICES assessment (ICES, 2014)) by the major fisheries in the Bay of Biscay sole area ICES Div. 8b 2003-2013 (o. 10m length vessels). **Discard estimates are scarce (information collected on discards is incomplete). Therefore, only sole partial fishing mortalities based on landings are represented below. Note that Spanish data are only available for 2012-2013.**

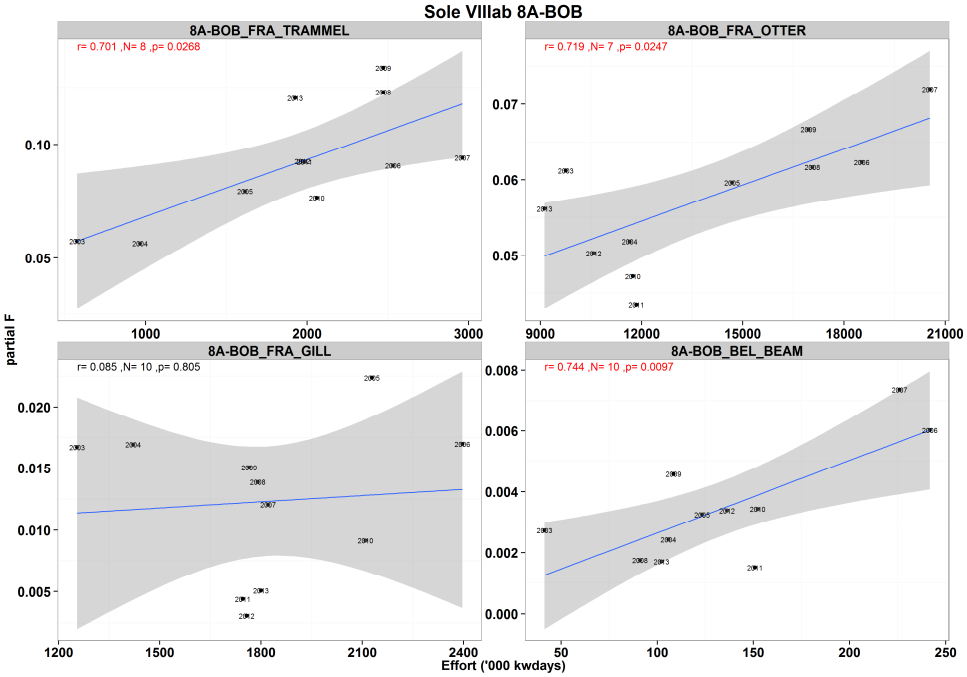


Fig. 5.10.8.3. Sole partial fishing mortality (based on partitioning the F from ICES assessment (ICES, 2014)) over effort ('000 kWd) in the Bay of Biscay sole area ICES Div. 8a of major fisheries, 2003-2013 (o. 10m length vessels). The years represent data points, the line a linear fit through the points and the grey the confidence bounds on the linear fit (+-2SE, 95%). **Discard estimates are scarce (information collected on discards is incomplete). Therefore, only landings are correlated against the fisheries specific fishing effort. Note that Spanish data are only available for 2012-2013.**

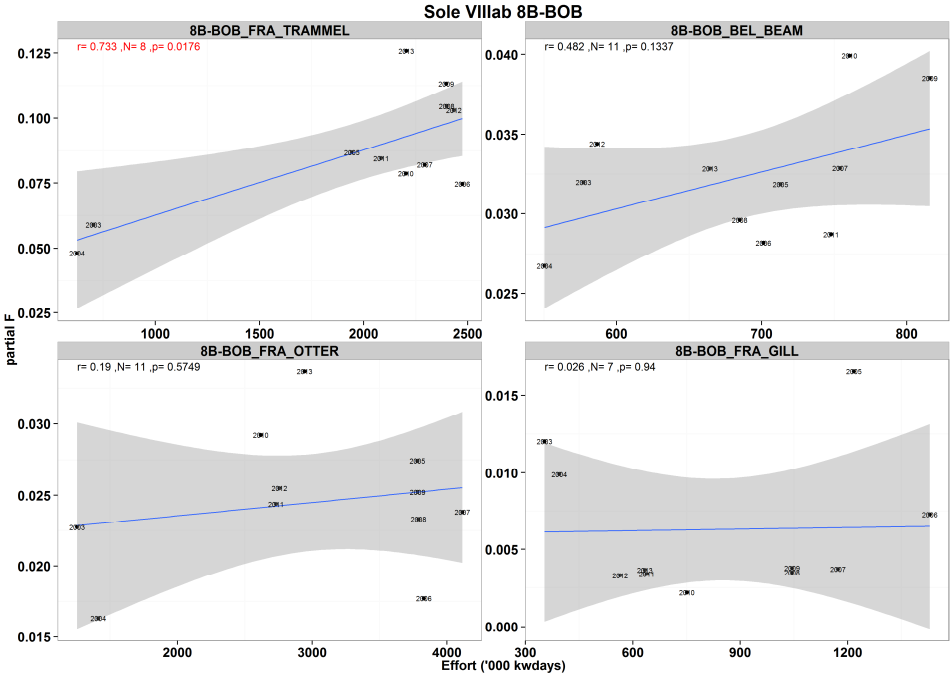


Fig. 5.10.8.4. Sole partial fishing mortality (based on partitioning the F from ICES assessment (ICES, 2014)) over effort ('000 kWd) in the Bay of Biscay sole area ICES Div. 8b of major fisheries, 2003-2013 (o. 10m length vessels). The years represent data points, the line a linear fit through the points and the grey the confidence bounds on the linear fit (+-2SE, 95%). **Discard estimates are scarce (information collected on discards is incomplete). Therefore, only landings are correlated against the fisheries specific fishing effort. Note that Spanish data are only available for 2012-2013.**

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8 LIST OF BACKGROUND DOCUMENTS

Background documents are published on the meeting's web site on:

http://stecf.jrc.ec.europa.eu/web/stecf/ewg1413

List of background documents:

1. EWG-14-13 – Doc 1 - Declarations of invited and JRC experts.
2. EWG-14-13 – Doc 2 – Digital appendixes (EXCEL spreadsheets) to the present report: Fisheries specific parameters (fishing effort).

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Abstract

STECF noted that the EWG has addressed the ToR regarding the requested fishing effort regime evaluations in the

1. Eastern and Western Baltic,
2. the Kattegat,
3. the Skagerrak, North Sea, European waters in ICES Div.2 and the Eastern Channel,
4. to the West of Scotland,
5. Irish Sea,
6. Celtic Sea,
7. Atlantic waters off the Iberian Peninsula,
8. Western Channel,
9. Western Waters and Deep Sea
10. and the Bay of Biscay,

i.e. updated estimates of trends in fishing effort, landings and discards by species, CPUE and LPUE by fisheries and species, and partial fishing mortalities for effort regulated and non-regulated fisheries by Member States. A few ToR could not be accomplished due to time constraints and/or data deficiencies. It is noted that compilations of fisheries specific data by fishing effort management regime and Member State are provided as electronic appendixes and can be downloaded at http://stecf.jrc.ec.europa.eu/web/stecf/ewg1413 in order to facilitate transparent dissemination of the information and further use.

Due to the complexity of the fisheries information provided, interested users are advised to consult the data quality notes and data notations provided in the present report.

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The Scientific, Technical and Economic Committee for Fisheries (STECF) has been established by the European Commission. The STECF is being consulted at regular intervals on matters pertaining to the conservation and management of living aquatic resources, including biological, economic, environmental, social and technical considerations.

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